Appendix I: Written Test Rules

Senior 4 Consumer Mathematics (40S) Standards Test

The supervising teacher is expected to read these rules aloud to students at the beginning of the Senior 4 Consumer Mathematics (40S) Standards Test—Written Test:

- Check the title of your *Written Test Resource Package* and *Written Test Student Booklet* carefully. Make certain that the number of your test booklet corresponds with the number that you used for your Portfolio and Project booklets.
- During this test session, do not proceed until instructed to do so.
- If you receive a damaged or misprinted booklet, raise your hand and I will give you a new one.
- You are expected to remain in the test room for **45 minutes**. (You may leave before that time in exceptional circumstances such as illness, when accompanied by a supervisor.)
- At the beginning of the session you should only have a *Written Test Student Booklet*, a *Written Test Resource Package*, an HB lead pencil, an eraser, a ruler and a scientific calculator. No other materials are permitted. Do not exchange test materials and calculators.
- You will not give assistance to, nor receive assistance from another student. If you require something during the test, raise your hand and I will come to you.
- During the test I can help you with the directions, but I will not be able to help you with the test questions.
- Do **not** identify yourself, your school, teacher or town in your test booklet.
- When I ask you to stop writing, put your pencil down immediately.
- You may not discard any materials. The test booklet must remain intact unless otherwise instructed. Any extra paper used must be stapled into the test booklet on the appropriate page. You may **not** leave the room with any materials pertaining to the test.

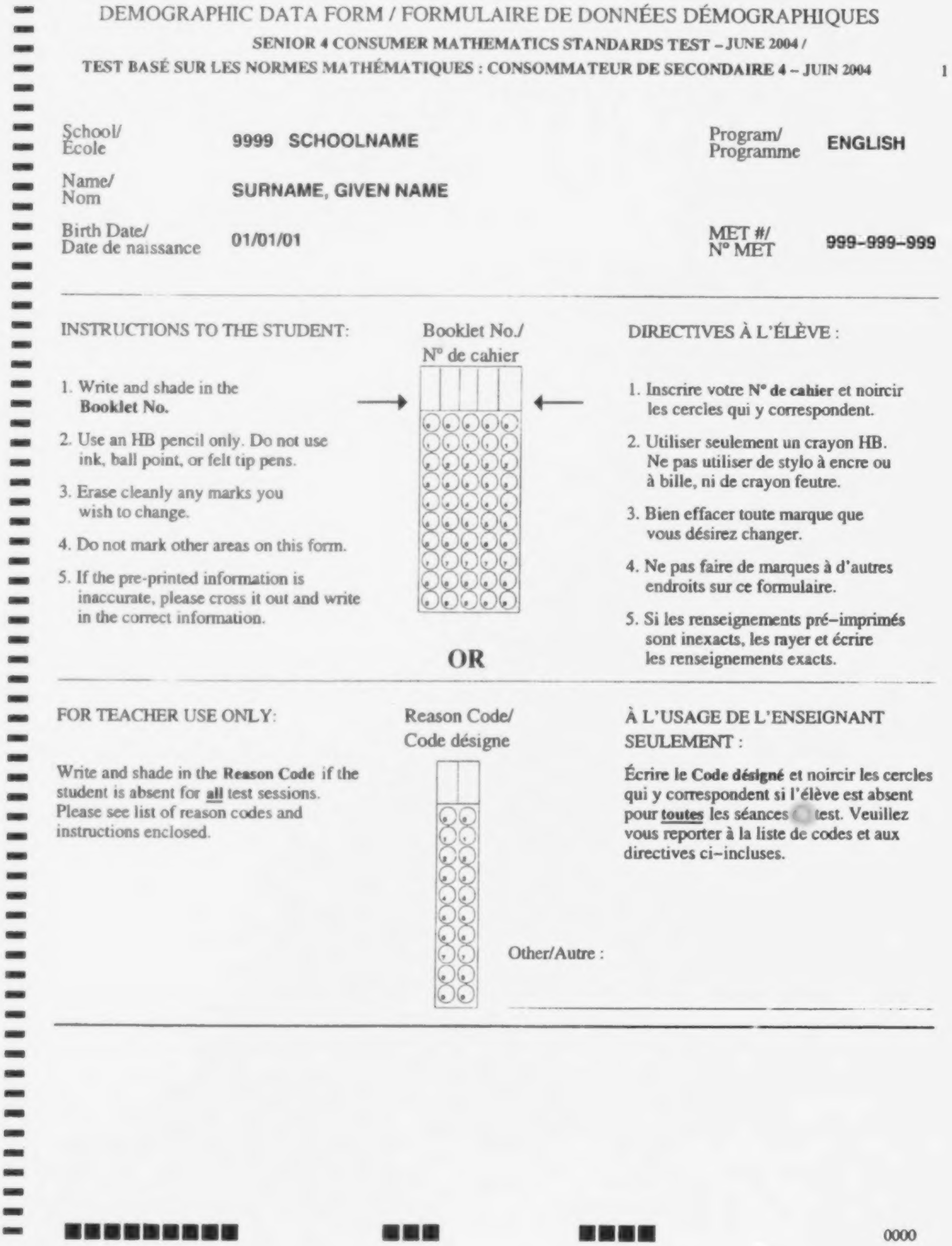
Appendix II: Directing Words

Senior 4 Consumer Mathematics (40S) Standards Test

Directing Words in the Written Test

The Word	The question is asking for…
identify/list/name/state	a label or title of an item, concept or method
defend/justify/support	an explanation, information, or evidence that shows why your method, idea or answer is good
describe/explain/express	words or symbols, diagrams, a chart or graph, or other methods that **make clear** what you mean or what you are thinking
illustrate/sketch	a reasonably neat picture or diagram (not necessarily to scale) that shows or explains an idea or method
draw	a diagram to scale or graph that shows or explains an idea or method
calculate/convert/determine/find	a mathematical formula or algebraic equation or numerical calculation to solve a problem
plot	placement of a point or points on a graph NEW!

Appendix III: Sample Pre-printed Demographic Data Form



DEMOGRAPHIC DATA FORM / FORMULAIRE DE DONNÉES DÉMOGRAPHIQUES

SENIOR 4 CONSUMER MATHEMATICS STANDARDS TEST – JUNE 2004 /

TEST BASÉ SUR LES NORMES MATHÉMATIQUES : CONSOMMATEUR DE SECONDAIRE 4 – JUIN 2004 1

School/ École	**9999 SCHOOLNAME**	Program/ Programme	**ENGLISH**
Name/ Nom	**SURNAME, GIVEN NAME**		
Birth Date/ Date de naissance	**01/01/01**	MET #/ N° MET	**999-999-999**

INSTRUCTIONS TO THE STUDENT:

1. Write and shade in the **Booklet No.**
2. Use an HB pencil only. Do not use ink, ball point, or felt tip pens.
3. Erase cleanly any marks you wish to change.
4. Do not mark other areas on this form.
5. If the pre-printed information is inaccurate, please cross it out and write in the correct information.

Booklet No./ N° de cahier

DIRECTIVES À L'ÉLÈVE :

1. Inscrire votre **N° de cahier** et noircir les cercles qui y correspondent.
2. Utiliser seulement un crayon HB. Ne pas utiliser de stylo à encre ou à bille, ni de crayon feutre.
3. Bien effacer toute marque que vous désirez changer.
4. Ne pas faire de marques à d'autres endroits sur ce formulaire.
5. Si les renseignements pré-imprimés sont inexacts, les rayer et écrire les renseignements exacts.

OR

FOR TEACHER USE ONLY:

Write and shade in the **Reason Code** if the student is absent for all test sessions. Please see list of reason codes and instructions enclosed.

Reason Code/ Code désigne

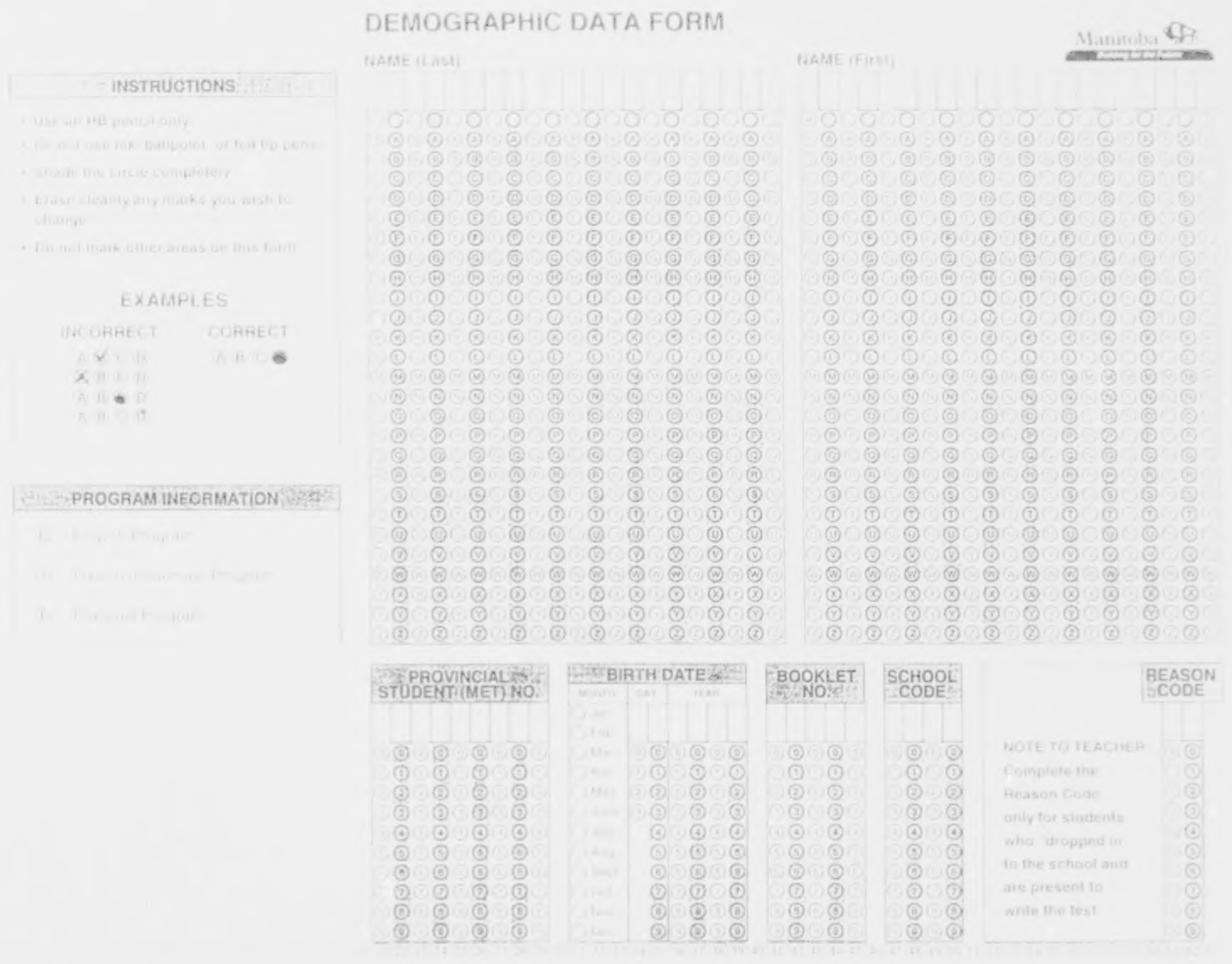
À L'USAGE DE L'ENSEIGNANT SEULEMENT :

Écrire le Code désigné et noircir les cercles qui y correspondent si l'élève est absent pour toutes les séances [illegible] test. Veuillez vous reporter à la liste de codes et aux directives ci-incluses.

Other/Autre :

0000

Appendix IV: Sample Generic Demographic Data Form



DEMOGRAPHIC DATA FORM

Manitoba

NAME (Last)

NAME (First)

INSTRUCTIONS

- Use an HB pencil only.
- Do not use ink, ballpoint, or felt tip pens.
- Shade the circle completely.
- Erase cleanly any marks you wish to change.
- Do not mark other areas on this form.

EXAMPLES

INCORRECT

CORRECT

PROGRAM INFORMATION

PROVINCIAL STUDENT (MET) NO.

BIRTH DATE

MONTH

DAY

YEAR

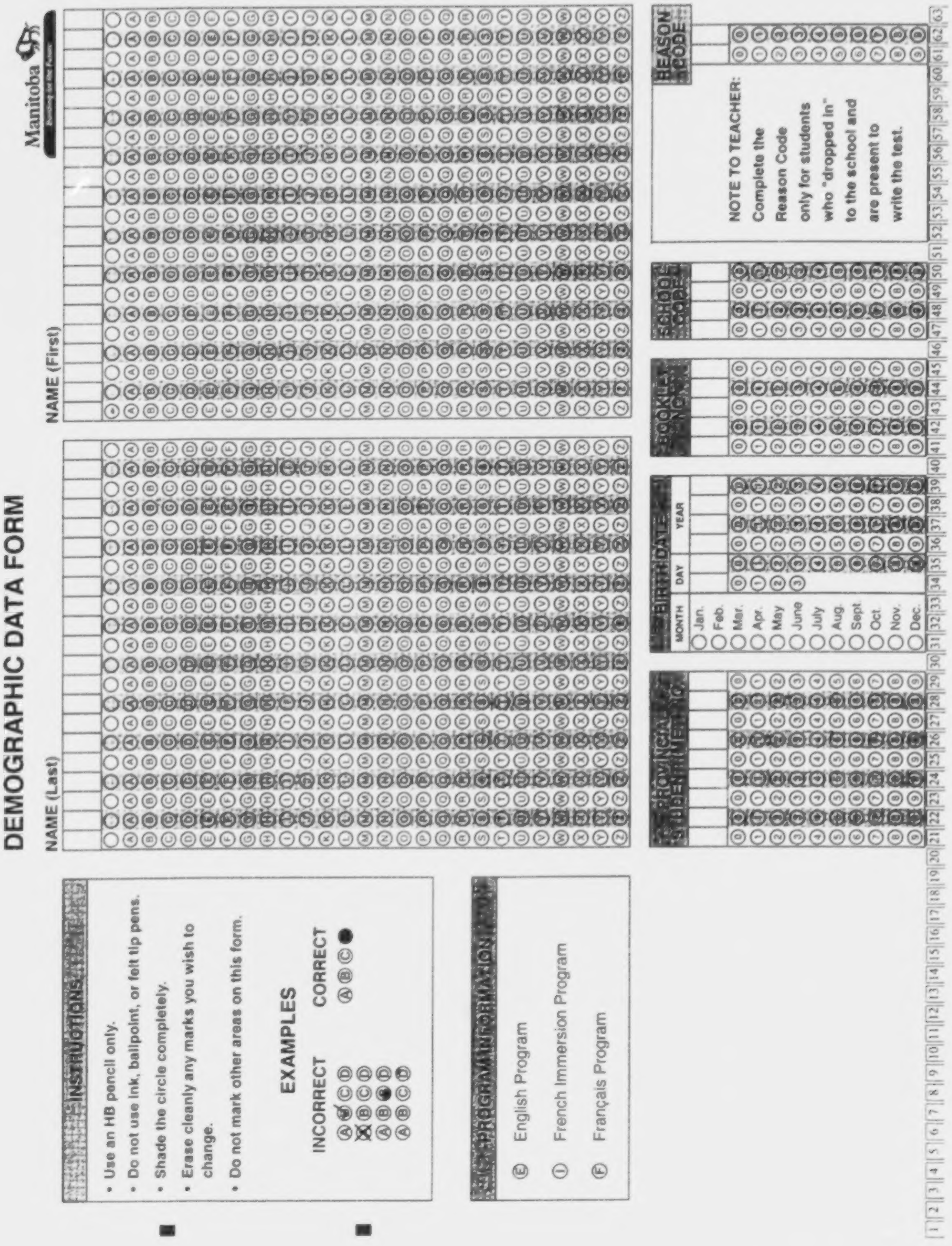
BOOKLET NO.

SCHOOL CODE

REASON CODE

NOTE TO TEACHER:
Complete the
Reason Code
only for students
who "dropped in"
to the school and
are present to
write the test.

Appendix IV: Sample Generic Demographic Data Form



DEMOGRAPHIC DATA FORM

Manitoba

NAME (Last)

NAME (First)

INSTRUCTIONS

- Use an HB pencil only.
- Do not use ink, ballpoint, or felt tip pens.
- Shade the circle completely.
- Erase cleanly any marks you wish to change.
- Do not mark other areas on this form.

EXAMPLES

INCORRECT

CORRECT

PROGRAM INFORMATION

Ⓔ English Program

Ⓘ French Immersion Program

Ⓕ Français Program

PROVINCIAL STUDENT NUMBER

BIRTH DATE

MONTH	DAY	YEAR
○ Jan.		
○ Feb.		
○ Mar.		
○ Apr.		
○ May		
○ June		
○ July		
○ Aug.		
○ Sept.		
○ Oct.		
○ Nov.		
○ Dec.		

BOOKLET NO.

SCHOOL CODE

REASON CODE

NOTE TO TEACHER: Complete the Reason Code only for students who "dropped in" to the school and are present to write the test.

Appendix V: Sample Attendance Form

School Number: 9999
Somewhere School
Somewhere Address
Somewhere MB R0R 0R0

Page _____ of _____

ATTENDANCE FORM—SEMESTER 2—2003–2004

Senior 4 Consumer Mathematics (40S) Standards Test

Booklet Number	Student Name (*please print*)	*Demographic Data Form* Submitted (check ✔)	Portfolio Submitted (check ✔)	Student Attendance During Project Sessions[1]			Project Submitted (check ✔)	Written Test[2] Booklet Submitted (check ✔)
				S1	S2	S3		
10001	SANDRA WONG	✔	✔	✔	✔	A	✔	
10002	KEVIN MELNYCHUK	✔	✔	✔	A	A		✔
10003	DAMAGED							
10004	DALLAS SEVERN	✔	✔	✔	✔	A	✔	✔
10005	MANUEL SOUSA	✔		✔	A^M	✔	✔	✔
10006	ROBERT SMITH	✔	✔	✔	✔	✔	✔	✔
10007	UNUSED							
~~10008~~	Used with 10004 (damaged)							
~~10009~~	Used in another classroom							
~~10010~~	Used in another classroom							

[1] *For each Project session, record a "✔" for Present. An "A" indicates a student is Absent. "A^M" indicates student absence and make-up session held later.* Make-up sessions may be conducted at the classroom teacher's discretion **for the Project component only**.

[2] *There are no make-up sessions for the Written Test.*

Mrs. Gail Cronkite

Supervising Teacher's Name (*please print*)

Please retain a copy of this form for your records. You will need a copy of this form to link your locally marked test with a student's name.

Appendix VI: List of Reason Codes to Record Changes in Standards Test Student Registration Numbers

(Please use these codes to complete the *Student Registration Update Form* and the *Demographic Data Form* before returning them to the Assessment and Evaluation Branch in June 2004.)

ABSENT	
01	arrived too late to write the test
02	did not write due to weather
03	family/personal reasons
04	medical/illness/accident
05	out-of-town activity (athletic/academic)
06	religious objections
07	student refused to write
08	unexcused
09	working
10	suspended
19	other (please specify)

WITHDRAWN	
22	dropped course
23	incarcerated/court
24	medical/illness/accident
25	family/personal reasons
26	poor attendance/progress
27	quit school
28	expelled
29	other (please specify)

INCOMPLETE	
40	continuing course/program next semester
41	no work completed
49	other (please specify)

ERRORS IN REGISTRATION	
20	changed program
21	deceased
50	already has credit
51	auditing the course
52	exchange student
53	registered twice
54	quarter system projected registration
55	registered in wrong grade
59	other (please specify)

EXEMPTIONS	
60	emotional/psychological condition or circumstances
61	"M" credit designation
62	"E" credit designation
63	"phase d'accueil—bloc intensif" designation
69	other (please specify)

DROP INS	
70	forgotten on original test registration
71	late registration to course
72	transferred in from another school/province/country
73	rewrite (not currently enrolled)
79	other (please specify)

MIGRANCY	
90	transferred to another school within the province
91	transferred to another school outside of the province
99	other (please specify)

[illegible]

Senior 4 Consumer Mathematics (40S)
Standards Test

Portfolio
Guide for Teachers

2004

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Building for the Future

This package contains:

- Introductory Information
- *Student Organizer Sheet*
- Student explanation sheets with Portfolio questions
- Recommended Portfolio Scoring Strategy
- *Portfolio Scoring Rubric*
- Copy of the *Portfolio Recording Sheet*

Introductory Information

The Portfolio component of the Senior 4 Consumer Mathematics (40S) Standards Test has a classroom-based administration and may be scored using either a contents approach or an interview approach at the discretion of the classroom teacher.

The questions for the Portfolio component are designed to function as both writing prompts (contents approach) and interview prompts (interview approach).

Teachers are encouraged to have students complete preparatory work on the reflection sheets towards the end of the course and to begin the Portfolio component process prior to the two-week assessment period to allow sufficient time for interviewing and/or marking.

Recommendations for Preparing Students for the Portfolio component

1. Inform students whether they will be submitting their portfolios for marking (contents approach) or whether they will be bringing their portfolios to a 20-minute interview (interview approach).

2. Share the scoring rubric with students. The more information they have on the method of evaluation, the more prepared they will be to meet the expectations.

3. Remind students to use the *Student Organizer Sheet* to assist them in selecting work samples that illustrate different skills as well as different units of study. For example, selecting three tests from three different units will not score as well as three different types of consumer mathematics activities from three different units. Selecting a variety of work samples will also help eliminate repetitious explanations.

4. Inform students that their reflection sheets are the method by which they will be evaluated if the contents approach is being used. If the interview approach is being used, the reflection sheets provide pointers for discussion during the interview.

5. Explain to students that each reflection sheet has two major questions followed by sub-questions. These questions are designed as focal points for their written response (contents approach). In the interview approach, these are the verbal prompts that the interviewer uses to elicit a response from them about each portfolio selection.

6. Make students aware that for reasons of fair assessment, interviewers will not stray from the prompts provided on the reflection sheets. Similarly, when using the contents approach, teachers will not proofread or make suggestions about written responses prior to submission.

Recommendations for Administering the Portfolio component

1. Introduce the practice of maintaining a portfolio early in the year. Inform students that part of their assessment will be based on their portfolio.
2. Create a system for organizing and storing portfolios. Some teachers have had students use storage containers such as pizza boxes, file folders or accordion files.
3. Form your decision to interview students or mark their submitted portfolios early in the semester/year. Inform the students of your plan.
4. Plan sufficient time and reserve a quiet place for interviewing/marking the Portfolio component. All marks must be recorded by June 7, 2004.
5. **Photocopy sufficient quantities** of the *Student Organizer Sheet* and student reflection sheets. Distribute the sheets to students to allow sufficient time for them to make good choices in their sample selections and to construct thorough responses.
6. If interviewing, relax the student by describing the process. Let the student know in advance that you will be jotting down notes as the interview proceeds to help you recall the details.
7. Keep the recording sheets in a secure location with demographic forms and the *Attendance Form*. The *Attendance Form* is required during the remaining two parts of the standards test.

Recommendations for Scoring the Portfolio component

This package contains sufficient numbers of scan sheets (based on the number of students registered for your course) for recording portfolio scores. Keep a record of each student's results. A recording sheet template is provided to assist you.

Specific directions for scoring the portfolios are listed on page 13.

Student Organizer Sheet

Senior 4 Consumer Mathematics (40S) Standards Test: Portfolio

Please include the following six (6) work samples and their accompanying Reflection Sheet:

☑ **Career/Life Project**
- *Portfolio Sample: Career/Life Project Reflection Sheet*

☑ **Personal Income Tax Form**
- *Portfolio Sample: Personal Income Tax Form Reflection Sheet*

☑ **Design and Measurement Project**
- *Portfolio Sample: Design and Measurement Reflection Sheet*

☑☑☑ **Three (3) work samples of your choice**
- Samples from three (3) different units demonstrating a variety of skills and strategies (see list of types of samples for suggestions)
- *Portfolio Sample: Student Choice Reflection Sheet* (one for each sample)

Unit of Study:

☐ Problem Analysis
☐ Investigative Project
☐ Analysis of Games and Numbers
☐ Government Finances
☐ Investments
☐ Personal Finance
☐ Design and Measurement
☐ Statistics
☐ Variation and Formulas

Types of Work Samples (suggestions):

☐ Budget
☐ Daily Assignment
☐ Journal Entry
☐ Technology/Spreadsheet/CAD
☐ Other (specify) _______________
☐ Case Study
☐ Discussion Notes
☐ Project
☐ Test/Quiz
☐ Chart/Graph/Diagram
☐ Game/Puzzle
☐ Research
☐ Unit Summary

Booklet No.:

Portfolio Sample: Career/Life Project Reflection Sheet

PART A: THE CONSUMER MATHEMATICS CONNECTION

Describe your Career/Life Project.

- How did you choose the career?
- How did you research the project?
- What math-related skills did you use?
- How does this project connect to Consumer Mathematics?

PART B: THE REAL WORLD CONNECTION

Explain how this project might help you plan for your future.

- What did you learn about your personal skills and interests by doing this project?
- How does this project connect to everyday life?

Booklet No.:

Portfolio Sample:
Personal Income Tax Form Reflection Sheet

PART A: THE CONSUMER MATHEMATICS CONNECTION

Describe your sample Personal Income Tax Form.

- What math-related skills did you use to complete the Personal Income Tax Form?
- What information did you need to complete the Personal Income Tax Form?
- How does the Personal Income Tax Form relate to other units in Consumer Mathematics?

PART B: THE REAL WORLD CONNECTION

Explain the use of Personal Income Tax Forms.

- How does Personal Income Tax Form preparation connect to everyday life?
- Why are Personal Income Tax Forms required for both Manitoba and Canada?

Booklet No.:

Portfolio Sample:
Design and Measurement Reflection Sheet

PART A: THE CONSUMER MATHEMATICS CONNECTION

Describe your sample Design and Measurement project.

- What did you learn about design and measurement in this project?
- What processes were involved in completing this project?
- How do the math-related skills in this project connect to other units in Consumer Mathematics?

PART B: THE REAL WORLD CONNECTION

Explain how this sample connects to everyday life.

- What did you learn about your personal skills and interests?
- What types of activities or workplaces use this kind of design and measurement?

Booklet No.:

Portfolio Sample: Student Choice Reflection Sheet

Summary

Unit:

- ☐ Problem Analysis
- ☐ Investigative Project
- ☐ Analysis of Games and Numbers
- ☐ Government Finances
- ☐ Investments
- ☐ Personal Finance
- ☐ Design and Measurement
- ☐ Statistics
- ☐ Variation and Formulas

Types of Sample:

- ☐ Budget
- ☐ Daily Assignment
- ☐ Journal Entry
- ☐ Technology/Spreadsheet/CAD
- ☐ Other (specify) ______________
- ☐ Case Study
- ☐ Discussion Notes
- ☐ Project
- ☐ Test/Quiz
- ☐ Chart/Graph/Diagram
- ☐ Game/Puzzle
- ☐ Research
- ☐ Unit Summary

PART A: THE CONSUMER MATHEMATICS CONNECTION

Describe your sample.

- Why is this sample important to include in your portfolio?
- What processes were involved in completing this sample?
- What math-related skills did you use?
- How does this sample connect to the themes and/or units in Consumer Mathematics?

PART B: THE REAL WORLD CONNECTION

Explain how this sample connects to everyday life.

- What did you learn about your personal skills and interests?
- What types of activities or workplaces use this kind of information?

Recommended Portfolio Scoring Strategy

Students are scored on 2 dimensions: format and reflection—using a pre-established scoring rubric (see next page) whether an interview approach is being used or a contents approach is being used.

Dimension 1—Format

THE MARKER HOLISTICALLY SCANS THE PORTFOLIO

This scoring dimension focuses on overall impression, neatness and completeness. The marker is answering the question, "Generally, are the portfolio samples varied, legible, carefully arranged?" The following marking strategy is recommended:

- Scan the student's portfolio for a general sense of how the student has selected samples and arranged them.
- Read the descriptors under Level 2 (which are identical to the learning outcomes) and decide if they are appropriate. If not, read the descriptors of the level above or below.
- If only some of the descriptors in a particular level of performance fit, determine the degree to which the student is approaching the next or previous level and whether the "approaching level" is a more appropriate description of the portfolio.
- If the student's portfolio contains less than the 3 mandatory samples, select the "insufficient information" descriptor.

Dimension 2—Reflection

THE MARKER HOLISTICALLY CONSIDERS EACH STUDENT SAMPLE

Dimension 2 focuses on each sample in the student's portfolio collection. The marker is answering the question, "For each sample, has the student linked the content of the reflection sheet to the work sample in terms of real world connections and consumer mathematics skills and strategies?"

The marker is searching for evidence of mathematical analysis and synthesis as it relates to the real world and other units of study. The following marking strategy is recommended:

- Read each student's reflection sheet for evidence of specific reflections related to each portfolio sample. [If using the interview approach, ask the student to respond orally to each prompt.]
- Form a judgement on the logic of reasoning in terms of each sample provided, the mathematical connections and the connections to the real world. [If using the interview approach, form a judgement based on the logic provided orally by the student.]

The "insufficient information" category is used when the marker cannot make a judgement on the portfolio for any of the following reasons:

- The portfolio is not legible
- No student reflection is provided/the reflection sheet is missing
- The portfolio does not fit the descriptors on the rubric
- The portfolio is not submitted*

* Shade in the "no submission" bubble beside the "Total Score" in addition to the "insufficient information" bubbles.

	Consumer Mathematics 40S **PORTFOLIO** Scoring Rubric	**Level 1 Descriptors**	**Level 2 Descriptors**	**Level 3 Descriptors**
Format	**Context**	**Incomplete Portfolio:** *Unclear, inconsistent or incomplete portfolio*	**Complete Portfolio:** *Relatively clear and complete portfolio*	**Clear, Complete Portfolio:** *Clear, coherent, and complete portfolio*
	• Overall Impression	• Disorganized; some parts are legible	• Organized; all parts are legible	• Organized; all parts are easy to read
	• Selection (variety)	• Limited selection of samples; some samples are missing or incomplete	• Complete selection of samples; all samples are complete and relevant	• Complete and varied selection of samples; all samples are complete and relevant
Reflection	**Collection: Analysis/Synthesis**	**Limited Reflections:** *Reflections on reflection sheets are sketchy, vague, or not present*	**Routine Reflections:** *Reflections on reflection sheets are limited, general or similar*	**Thorough/Insightful Reflections:** *Reflections are insightful or specific to samples*
	• Mathematical Connection (question 1)	• Errors in reasoning; ideas are sometimes unrelated to mathematical concepts	• Logical reasoning; ideas are related to mathematical concepts	• Insightful reasoning; ideas combine mathematical concepts
		• Explanation relates loosely to portfolio work sample	• Explanation relates generally to portfolio work sample	• Explanation is linked directly to portfolio work sample
	• Real World Connection (question 2)	• No attempt to connect across concepts or to everyday life	• Connects mathematical concepts to everyday life where applicable	• Makes multiple or in-depth connections between mathematical concepts and everyday life where applicable

Performance Level:	Level 1	Approaching Level 2	Level 2	Approaching Level 3	Level 3

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PLEASE DO NOT WRITE IN THIS AREA
■○○○○○○○○○○○○○○○○○○■■■■■■■ [SERIAL]

Senior 4 Consumer Mathematics (40S) Standards Test—2004

Portfolio Scoring Sheet

NEW!

INSTRUCTIONS

- Use an HB pencil only.
- Do not use ballpoint or felt tip pens.
- Do not mark other areas on this form.
- Shade the appropriate circle.
- Erase cleanly any marks you wish to change.

CORRECT: ● INCORRECT: ⊘⊠◒◔

○ INTERVIEW APPROACH

○ CONTENTS APPROACH

		Insufficient Information	Level 1	Approaching Level 2	Level 2	Approaching Level 3	Level 3	
Format	**Context** • Overall Impression • Selection	⓪	①	②	③	④	⑤	101
(25)	SUBTOTAL (5 x Score)							
Reflection	**Collection: Analysis/Synthesis**							
	Sample 1: Career/Life Project • Mathematical Connection (Part A)	⓪	①	②	③	④	⑤	102
	• Real World Connection (Part B)	⓪	①	②	③	④	⑤	103
	Sample 2: Personal Income Tax Form • Mathematical Connection (Part A)	⓪	①	②	③	④	⑤	104
	• Real World Connection (Part B)	⓪	①	②	③	④	⑤	105
	Sample 3: Design and Measurement • Mathematical Connection (Part A)	⓪	①	②	③	④	⑤	106
	• Real World Connection (Part B)	⓪	①	②	③	④	⑤	107
	Sample 4: (Choice 1) • Mathematical Connection (Part A)	⓪	①	②	③	④	⑤	108
	• Real World Connection (Part B)	⓪	①	②	③	④	⑤	109
	Sample 5: (Choice 2) • Mathematical Connection (Part A)	⓪	①	②	③	④	⑤	110
	• Real World Connection (Part B)	⓪	①	②	③	④	⑤	111
	Sample 6: (Choice 3) • Mathematical Connection (Part A)	⓪	①	②	③	④	⑤	112
	• Real World Connection (Part B)	⓪	①	②	③	④	⑤	113
(75)	SUBTOTAL (1.25 x Score)							
	No submission	Ⓝ	TOTAL SCORE /100					

FOR FURTHER INFORMATION
Assessment and Evaluation Branch

Consumer Mathematics (40S)

Assessment Consultant:
Neil Vadeboncoeur 945-6715
or toll-free at 1 800 282-8069, extension 6715

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Assessment and Evaluation Branch,
Winnipeg, Manitoba R3E 3J5

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Senior 4 Consumer Mathematics (40S)
Standards Test

Project Resource Package

Moving Out

Semester 2
2004

Manitoba
Building for the Future

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Assessment and Evaluation Branch,
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Welcome to the Moving Out Project

General Information

The purpose of the first session is to provide an opportunity for you to:

- develop an understanding of the project requirements;
- become familiar with the information contained in the Project Resource Package; and
- share ideas related to the project in a brainstorming session.

After the first project session the following conditions apply:

1) Two additional class work periods will be provided.
2) Your teacher cannot assist you in developing or revising your project.
3) You may conduct research on your project between work periods.
4) You must submit an individual project that reflects your own work.

Guidelines for the Moving Out Project

This project requires you to take the view of a person who is helping two friends.

In doing this project the following scenarios and requirements apply:

1. You are creating a plan for two friends who wish to move out in two months. Your plan will detail how much it will cost them to move away from home.
2. Your plan will also estimate their on-going costs of living away from home.
3. Your friends will be roommates who require separate bedrooms in an apartment.
4. Your friends have saved $500 each in preparation for moving out.
5. They have free access to a half-ton truck to move their belongings.
6. Your friends each earn $800 net per month.
7. Both friends will be taking the contents of their current bedrooms with them to the new apartment.
8. Family and friends have offered your friends the following items for their new apartment:
    - kitchen items;
    - bathroom items;
    - bedding and linens; and
    - a television.
9. Your friends refuse to purchase any second-hand items.

Directions for the Moving Out Project

Your project must include the following information:

- factors considered when selecting a place to live;
- recommendations, including assumptions, for a savings plan to prepare for apartment living;
- list of costs associated with moving;
- list of items required (purchased or donated);
- immediate start-up costs of moving into an apartment;
- monthly budget for living in the apartment for a year;
- a detailed comparison of 2 rental properties; and
- justifications for your decisions based on income.

Explain any assumptions you make in completing your project.

Your completed project must:

- be separate from this *Project Resource Package* booklet;
- be well organized and clearly presented with an introduction and conclusion;
- have all work double-spaced; and
- be written or printed in blue or black ink OR printed using black ink from a computer printer or typewriter.

Project Resource Package

This *Resource Package* includes:

- budget template;
- apartment rental listings;
- apartment expenses; and
- background information.

Use of *Resource Package*:

This resource package is designed to provide background information, charts, diagrams, and tables to assist you in completing your project. You may use additional or alternate resources if you wish. Remember to submit your project separate from this booklet.

Budget Template

Budget Template

PART A: Net Income (Annual)

Wages/Salary ____________

Other (specify) __________ ____________

Average Monthly Net Income ____________

PART B: Expenses (Monthly)

Mortgage/Rent ____________

Food ____________

Transportation (specify) __________ ____________

Recreation/Entertainment ____________

Savings ____________

Loan Payments ____________

Utilities ____________

Insurance ____________

Gifts/Charitable Donations ____________

Personal ____________

Clothing ____________

Other (specify) __________ ____________

Total Expenses ____________

PART C: Balance

Monthly Net Income — Total Expenses = ____________

Balance ____________

Apartment Rental Listings

Tall Towers Furnished Suites

Our spacious studio, one and two bedroom, and penthouse suites are available fully furnished on a daily, weekly, or monthly basis and feature the following amenities:

- Full kitchen complete with all dishes, pots, utensils
- Fridge, stove, microwave and dishwasher
- Maid service weekly; towel change twice weekly
- Colour television and remote in every suite
- Telephone (free local calls)
- Heated underground parking is available
- Use of the pool, whirlpool and sauna
- Coin-operated laundry
- On-site convenience store and beauty salon

APARTMENT TYPES		PRICES		
Size		**Monthly**	**Weekly**	**Daily**
Studio	490 sq. ft.	$1 060.00	$445.00	$63.00
1 Bedroom	670 sq. ft.	$1 195.00	$490.00	$70.00
2 Bedroom	953 sq. ft.	$1 420.00	$596.00	$85.00
Penthouse	1 400 sq. ft.	$1 800.00	$750.00	$108.00

LANDLORD PAYS	DESCRIPTION
Air conditioning, drapes, electricity, heat, water and cable	Spacious apartments in quiet building. Close to shopping and bus routes.

Wilton Apartments

APARTMENT TYPES	PRICES*	LANDLORD PAYS	TENANT PAYS
1 Bedroom	$486.00 to $500.00	Air conditioning, drapes, electricity, heat, and water	Cable, laundry, telephone
2 Bedroom	from $567.00		
Parking	1 stall included		

DESCRIPTION	Spacious apartments in quiet 3 storey building. Exceptional value. Close to shopping, hospital and bus routes.

FEATURES AND POLICIES

- Air conditioned
- One car stall included
- Carpet in L/R and D/R
- One year lease
- Security entrance
- Window coverings
- Laundry facilities on-site
- No pets

* At lease signing, tenants must provide first and last month's rent plus a damage deposit of half a month's rent. At the close of the lease, all or a portion of the damage deposit will be refunded, based on the condition of the apartment.

Red River Apartments

APARTMENT TYPES	PRICES*	LANDLORD PAYS	TENANT PAYS
1 Bedroom	$539.00 to $648.00	Water	Heat and Lights (Electricity), Cable, Telephone
2 Bedroom	$743.00 to $840.00		
Parking	$50.00 ($85 for non-residents)		
NOTE: Rental rates subject to annual increase every October.			
Estimated electricity per month: $45.00			

DESCRIPTION

Unique one and two bedroom suites designed for elegant living at affordable prices. Each suite features:

- Central air conditioning
- Appliances including frost-free refrigerator, stove and dishwasher
- In-suite washer and dryer
- European kitchen cupboards
- Some with balconies
- Ample in-suite storage
- Luxurious wall to wall carpeting.

BUILDING AMENITIES

- Indoor parking
- Swimming pool, whirlpool, running track and sauna facilities.

Three apartment towers soar above the Manitoba landscape reflecting the old-world splendour of European architecture. Browse in the nearby shopping mall.

FEATURES AND POLICIES

- Security building
- Elevator
- Balcony
- Exercise facilities
- Dishwasher
- Wheelchair accessible
- Management on-site
- Air conditioning
- Pool
- Sauna and whirlpool
- In-suite laundry
- Indoor parking

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* At lease signing, tenants must provide first and last month's rent plus a damage deposit of half a month's rent. At the close of the lease, all or a portion of the damage deposit will be refunded, based on the condition of the apartment.

Manor Estates

APARTMENT TYPES	PRICES*	LANDLORD PAYS	TENANT PAYS
1 Bedroom	from $550.00	Electricity, cable, heat, water, air conditioning	Laundry, parking, telephone
2 Bedroom	from $571.00		
Parking	$32.00		

DESCRIPTION

5-storey building with elevator, on main bus route, close to parks and shopping.

FEATURES AND POLICIES

- Elevator
- Air conditioned
- Pool
- Carpet and tile flooring
- One year lease
- Security entrance
- On main bus route
- Sauna
- Laundry facilities on each floor
- No pets

* At lease signing, tenants must provide first and last month's rent plus a damage deposit of half a month's rent. At the close of the lease, all or a portion of the damage deposit will be refunded, based on the condition of the apartment.

Chateau Antoine Apartments

APARTMENT TYPES	PRICES*	LANDLORD PAYS	TENANT PAYS
Bachelor	$396.00	Heat and lights (Electricity), Water, Air conditioning	Cable, telephone, parking
1 Bedroom	$533.00		
2 Bedroom	$630.00		
Parking	$36.00		
NOTE: Rental rates subject to annual increase every October.			

DESCRIPTION

Prestigious 15-storey high-rise on a main thoroughfare in the heart of a French community. Safe, suburban living. We have recreation facilities on-site with social activities taking place daily. We provide year-round swimming with an indoor pool and sauna. For peace of mind, we have a 24-hour camera-monitored security system. The building has central air conditioning throughout. There are 3 levels of underground parking available. Management and/or caretaker on-site 24 hours.

AREA AMENITIES AND ATTRACTIONS

A major hospital and every kind of medical facility within a 6-block radius. Bus stop at front of apartment building. Supermarkets, banks, pharmacies, restaurants, beauty salons, bingo halls, legion, small shopping plazas within 5-block radius. Tourist attractions, gourmet dining, speciality shops, open markets, and special events are available year-round all in a 3-km radius.

FEATURES AND POLICIES

- Security building
- Elevator
- Balcony
- Wheelchair accessible
- Management on-site
- Central air conditioning
- Sauna
- Underground parking
- No pets

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* At lease signing, tenants must provide first and last month's rent plus a damage deposit of half a month's rent. At the close of the lease, all or a portion of the damage deposit will be refunded, based on the condition of the apartment.

Waterfront Towers

APARTMENT TYPES	PRICES*	LANDLORD PAYS	TENANT PAYS
1 Bedroom	from $612.00	Heat, electricity, water and satellite TV	Laundry, cable, telephone
2 Bedroom	from $725.00		
Indoor Parking	$47.00 to $ 52.00		
1 Bedroom furnished	$1 095.00		
2 Bedroom furnished	$1 295.00		
Indoor Parking	Parking Included		

DESCRIPTION

Situated just minutes from the downtown area, these high-rises offer fabulous city and river views. No where else can you find a private sundeck, great neighbours and friendly, courteous staff. Bus service is just a few steps from the front doors.

FEATURES

- Heat, electricity and water included
- Air conditioning
- Large balconies
- Indoor pool and sauna
- Exercise equipment
- On-site security
- On-site management
- 24 hour emergency number
- Satellite TV available
- In-suite storage

* At lease signing, tenants must provide first and last month's rent plus a damage deposit of half a month's rent. At the close of the lease, all or a portion of the damage deposit will be refunded, based on the condition of the apartment.

St. Jean Apartments

APARTMENT TYPES	PRICES*	LANDLORD PAYS	TENANT PAYS
1 Bedroom 2 Bedroom 3 Bedroom	from $591.00 from $683.00 from $794.00	Heat, electricity, water, air conditioning, satellite TV and parking	Laundry, telephone

DESCRIPTION

1, 2 and 3-bedroom suites. Includes all utilities. Laundry facilities and parking available. Building security. Air conditioning. Balconies on all suites. Close to hospital and shopping. Sorry, no pets.

* At lease signing, tenants must provide first and last month's rent plus a damage deposit of half a month's rent. At the close of the lease, all or a portion of the damage deposit will be refunded, based on the condition of the apartment.

Apartment Expenses

Tenant's Insurance Package Policy

Tenant's Insurance Package Policy ($500 deductible)		
All Areas—Manitoba		
Coverage Amount	**Standard Form**	**Comprehensive Form**
$25 000	$158.00	$200.00
$30 000	$174.00	$226.00
$35 000	$199.00	$252.00
$40 000	$212.00	$269.00
$45 000	$235.00	$298.00
$50 000	$254.00	$324.00
$55 000	$272.00	$346.00
$60 000	$293.00	$373.00
$65 000	$315.00	$400.00
$70 000	$337.00	$427.00
$75 000	$359.00	$454.00
Each additional $1 000	$4.50	$5.50

$200 deductible – Increase premium by 10%

Typical Phone Bill SUMMARY

Demonstration Page

JOHN DOE

Billing Number: 999 9999
Account Number: 0000000
Prepared On: Mar 10, 2004

Your Bill Total

Previous Charges	
Previous Billed Amount	55.53
Payment Thank you	55.53
Outstanding Balance	**0.00**
Current Charges	
Monthly Rental MAR 10 to APR 9	21.39
Local Directory Assistance	0.75
Other Charges and Credits	0.00
Long Distance	0.00
GST 7% on 22.14	1.55
PST 7% on 22.14	1.55
TOTAL Amount Due	**25.24**

adapted from:
https://www.mts.mb.ca/internetbill/demo/dbill.htm

Talk Time Cellular Service

Wireless $20 Evening & Weekends

Say good-bye to time limits with **Talk Time** unlimited evening and weekend calling for just $20 a month!

Talk or browse the web, evenings and weekends as much as you like; its unlimited!

Our $20 Calling Plan Includes:

- Unlimited calling and web browsing evenings and weekends;
- 50 cents per minute weekday calling;
- Canada to Canada Long Distance 20 cents per minute, anytime, plus airtime;
- Canada to the US Long Distance 35 cents per minute, anytime, plus airtime;
- $25 for month to month option;
- free long distance between **Talk Time** cell phones within Manitoba; and
- Call waiting and conference calling (other calling features are available at monthly rates).

For more details on this offer, please contact or visit your nearest **Talk Time** store.

Talk Time Calling Components:

- Talk unlimited to one predetermined number (up to 50 calls a month) for only $5 a month.

Talk Time Calling Periods:
Peak hours are between 7 a.m. and 6 p.m. Monday – Friday
Evening hours are between 6 p.m. and 7 a.m. Monday – Thursday
Weekend hours start Friday at 6 p.m. and continue to 7 a.m. Monday

Note: The $20 Calling Plan is available for both Digital Cellular Service or Analog Cellular Service. With Digital Cellular Service, the plan offers per-second billing increments after the first minute. Billing for Analog Cellular Service is in per-minute increments.

Unlimited evening and weekend calling applies to voice calling and web browsing. Long distance and roaming charges still apply. Daytime voice calling and web browsing will be billed at 50 cents per minute. Daytime calling is Monday to Friday, 7 a.m. to 6 p.m. Digital service available in select areas. System Access Fee $6.65 per month or $79.80 annually.

adapted from:
http://thewirelessage.com/23.30.59.html

Cable Television Costs

		VALUE PACKS	PLUS PACKS (add movies)	SAVINGS ON PLUS PACKS
BRONZE CHOICE	• Essentials	$\$20^{99}$		
SILVER CHOICE	• Essentials • 3 Speciality choice bundles	$\$31^{99}$		$\$9^{97}$
GOLD CHOICE	• Essentials • 7 Speciality choice bundles	$\$41^{99}$	$\$57^{99}$	$\$31^{92}$
PLATINUM CHOICE	• Essentials • 9 Speciality choice bundles	$\$49^{99}$	$\$63^{99}$	$\$39^{90}$

Lightning High Speed Internet Service

	Price per Month	**Connection Time Limit**	**Over Usage Charges**
Surf	$39.95	30 hours	$2.00/hour
Surf-A-Lot	$49.95	60 hours	$2.00/hour
Surf Unlimited	$59.95	Unlimited	

Note: Modem and installation kit included.

adapted from:

http://www.bell.ca/shop/application/commercewf?origin=*.jsp&event=link(goto)&content=/jsp/content/personal/catalog/satellites/direcpc/rate_plans.jsp

Background Information

CONSUMERS' ASSOCIATION OF CANADA
ASSOCIATION DES CONSOMMATEURS DU CANADA
Manitoba

Utilities

Long-distance telephone

A long-distance phone call is a call you make to someone outside the city or town in which you live. You must have a local telephone line to make a long-distance call. You pay extra for long distance calls, in addition to your monthly telephone charges.

You can have a **long-distance plan** with MTS, or with another long-distance telephone company, such as AT&T or Sprint. You should contact several long-distance telephone companies and ask how their plan works. There are different types of plans:

Flat rate—This means that you pay the same amount of money no matter how many calls you make or how long you talk. This type of plan may be only for calls to other places in Canada, not other countries. If you choose this plan and call other countries, you may have to pay extra. You should ask about this before you choose a flat rate plan. This flat rate does not include the cost of your local telephone.

Time of day discounts—The cost of your phone call is less if you call at certain times of day, usually evenings and weekends. You pay a certain amount for every minute you are on the phone. The cost for one minute is different depending on where you call.

"Anytime" plans—These plans are often advertised as "anytime, anywhere". That is not quite true. You pay the same price for each minute no matter what time of day you call. You may pay the same cost for one minute to anywhere in the same country. The cost for one minute will usually be different for each country or continent.

If you buy long-distance from any company other than MTS, you will receive two bills each month: one for local phone service and one for long-distance phone charges. If you buy both services from MTS, you will get one bill. You will still be charged two separate costs: one for local phone service and one for long-distance phone calls.

You pay the same amount for local phone service each month, no matter how many local calls you make.

Cable television packages

Each company sells a number of channels in packages or bunches. This means that you cannot just buy any six channels. You must buy the basic package of channels before you can buy any extra channels. The basic package usually includes Channel 1 to Channel 13. You pay for this package each month.

Pay TV

These channels show movies most of the time, and are not part of a cable package. To see these channels, you may have to rent or buy a **converter**.

You must pay for the basic cable package before you can get Pay TV channels. Also, you must pay extra for the Pay TV channels. You will be charged for these channels each month on your cable television bill.

Pay-per-View TV

You can buy extra movies one movie at a time. These movies are shown on channels that are not part of the cable packages. To see these channels, you may have to buy or rent a converter, depending on the kind of TV you have. You must have the basic cable package before you can buy pay-per-view movies. Then you can call the cable company to order the movie you want to see. You will be charged for that movie on your cable bill.

Housing

Choosing where to live is a big decision. There are many things to consider and **budgeting** to do before deciding on a home. You can rent an apartment or house, or buy a house or **condominium**. It is wise to start by deciding how much you can afford to spend on housing. Then you can compare different homes.

How much can I afford?

As a general rule you should not spend more than 36% of your **gross income** on housing. Remember to include any government benefits, commissions and tips when adding your gross income. The amount of **debt** you have will affect how much you can spend on housing. Your total debt payments should not be more than 40% of your gross income.

Where should I live?

Choosing where to live depends on what is important to you.
Would you like to live close to your work, school, shopping and bus routes?
Are noisy traffic routes for cars, trains or planes a concern?
Is it close to police, fire and hospital services?
Are there public services such as garbage pick-up and snow removal?
If you are unsure where to begin looking ask friends or family what their neighbourhood is like. They may suggest an area you may like.

Where should I look?

Check with the local newspapers. The Classified section lists apartments or houses for rent as well as houses for sale. The classified section uses many abbreviations to describe the housing features. There are also free publications available, such as the *Home Renters Guide*, the *Real Estate News* and the *Real Estate Guide*. You can find these at grocery stores and other locations. Sometimes your local grocery store or library has a community bulletin board that advertises houses and apartments that are available in the area.

When looking at an apartment

Can you hear what is going on in the surrounding rental units in the building?
Is the outside of the building, including the lawn, well maintained?
Are the hallways, stairs and/or elevators in good condition?
Did you see the actual suite for rent?

Make yourself aware of safety issues in your future home.
Does the building have a **security system**?
Is the door of the rental unit strong?
Does the door have a **peep-hole**?

Make sure the **rental unit** has all the features you are looking for. Look around the apartment and try out appliances and lights to see if they work.

What questions should I ask?
How much does the apartment cost to rent?
When is the rent due?
What is included in the rent (utilities, parking, cable television)?
Is there a **lease** or can you rent month to month?
Can you **sublet** from another **tenant**?
Is there a laundry room in the building?
Can you have a pet?
Can you get a parking spot with a plug-in for your car in the winter?
How much **notice** must you give before moving out of the apartment?

When I find the apartment I am going to rent
Before you sign anything or make a deposit on the rental unit pay attention to these things:

Look at the apartment carefully with the **landlord**. Write down the condition of the rental unit and the repairs that need to be done. This is called a **condition report**. It is important for the future, so that you cannot be forced to pay for damage you did not cause.

Is there a **caretaker** living in the building? If not, how do you contact the caretaker or landlord if there is a problem?

If you want to rent the apartment, you may have to complete an application form and give a **damage deposit**. Do not sign the application form or pay a security deposit until you have made a final decision.

Make sure you see the actual suite that you plan to rent before signing anything or giving a security deposit.

The security deposit is usually the value of half of one month's rent. It cannot be more than that. The money is returned to you with interest when you move out, as long as no damage has been done to your place. It is common for the landlord to ask for both the first and last month's rent when you move in.

The Residential Tenancies Branch is a Manitoba government office. They can help if you are having a problem with your landlord.
Winnipeg: 945-2476 or 1-800-782-8403
Brandon: 726-6230 or 1-800-656-8481
Thompson: 677-6496 or 1-800-229-0639

Should I buy tenant insurance?
Yes! It is wise to buy **tenant insurance**. It only costs a few dollars a month. Landlords are not responsible for damage or loss of their tenant's personal possessions. On the other hand, **you are responsible for harm you cause to any part of the building in which you live, or accidental injury to others who live or visit you there**. Tenant insurance provides protection from this sort of **liability**.

You can choose from different types of insurance policies. Check with a few insurance companies to see what they offer. Remember, that even though one insurance policy may be cheaper, it may not offer the **coverage** that is right for you.

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Apartment Living

Although every person will have a unique perspective on what are essential items for apartment living, here is a list of general items that some people take into consideration when moving into a new apartment.

Do I have…? Do I need…?

- Iron
- Ironing board
- Broom
- Vacuum cleaner
- Dustpan
- Clothes hamper
- Garbage can
- Mop
- Pail
- Dish detergent
- Miscellaneous bathroom and kitchen cleansers
- Laundry detergent
- Fabric softener or dryer sheets
- Dish towels
- Bath towels and face cloths
- Blinds/curtains
- Miscellaneous furniture:
    - coffee table
    - end tables
    - dining room table and chairs
    - couch and chairs
    - television and stand
- Other

Acknowledgements

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Consumers' Association of Canada: Utilities URL: www.consumermanitoba.ca/guide/utilities.html (November 21, 2002), per the Pan Canadian Copyright Agreement.

Consumers' Association of Canada: Housing URL: www.consumermanitoba.ca/guide/housing.html (November 21, 2002), per the Pan Canadian Copyright Agreement.

Senior 4 Consumer Mathematics (40S)
Standards Test

Project Scoring Guide

Moving Out

Semester 2
2004

Manitoba
Building for the Future

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Winnipeg, Manitoba R3E 3J5

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Welcome to the Moving Out Project

General Information

The purpose of the first session is to provide an opportunity for you to:

- develop an understanding of the project requirements;
- become familiar with the information contained in the Project Resource Package; and
- share ideas related to the project in a brainstorming session.

After the first project session the following conditions apply:

1) Two additional class work periods will be provided.
2) Your teacher cannot assist you in developing or revising your project.
3) You may conduct research on your project between work periods.
4) You must submit an individual project that reflects your own work.

Guidelines for the Moving Out Project

This project requires you to take the view of a person who is helping two friends.

In doing this project the following scenarios and requirements apply:

1. You are creating a plan for two friends who wish to move out in two months. Your plan will detail how much it will cost them to move away from home.
2. Your plan will also estimate their on-going costs of living away from home.
3. Your friends will be roommates who require separate bedrooms in an apartment.
4. Your friends have saved $500 each in preparation for moving out.
5. They have free access to a half-ton truck to move their belongings.
6. Your friends each earn $800 net per month.
7. Both friends will be taking the contents of their current bedrooms with them to the new apartment.
8. Family and friends have offered your friends the following items for their new apartment:
    - kitchen items;
    - bathroom items;
    - bedding and linens; and
    - a television.
9. Your friends refuse to purchase any second-hand items.

Directions for the Moving Out Project

Your project must include the following information:

- factors considered when selecting a place to live;
- recommendations, including assumptions, for a savings plan to prepare for apartment living;
- list of costs associated with moving;
- list of items required (purchased or donated);
- immediate start-up costs of moving into an apartment;
- monthly budget for living in the apartment for a year;
- a detailed comparison of 2 rental properties; and
- justifications for your decisions based on income.

Explain any assumptions you make in completing your project.

Your completed project must:

- be separate from this *Project Resource Package* booklet;
- be well organized and clearly presented with an introduction and conclusion;
- have all work double-spaced; and
- be written or printed in blue or black ink OR printed using black ink from a computer printer or typewriter.

Note to teacher:

The purpose of this document is to assist teachers in detecting reasonable calculations and sufficient data when scoring student projects.

A variety of organizational structures and types of responses to the Moving Out Project is anticipated.

This document includes a scoring rubric and a sample response to the Project.

Student explanations for their decision-making will vary. When determining which apartment to select, students may consider many issues, including:

- long and short term budgetary plans
- preferred features of the apartment
- affordability of the apartment (including start-up and insurance costs)

Consumer Mathematics (40S)—Project Scoring Rubric
Moving Out Project—Specific Guidelines:

Consumer 40S PROJECT Scoring Rubric		MOVING OUT PROJECT
Impression/Structure/ Organization	**Format** **Generally, is the project inviting, easy to follow, carefully constructed?** • Impression • Structure (e.g., introduction, body, conclusion, headings, sections…) • Organization of Ideas	– Title page, introduction, heading/subheadings, conclusion/justification for decisions
Data Collection/Selection/ Presentation	**Data—Content** **Is the data relevant and presented in a reader-friendly way?** • Collection (required elements) • Selection • Presentation (e.g., charts, tables, diagrams, graphs)	– Comparison of rental properties – Selection of one apartment (including rationale) – Chart of costs associated with moving – Start up costs of living away from home – List of purchases required prior to moving – Recommendations for a savings plan (budget sheet) – Justification for decisions based on economic feasibility
Reflection/Analysis/ Mathematical Procedures	**Data—Interpretation** **Has data been manipulated using consumer mathematics terminology, skills and strategies?** • Mathematical procedures • Terminology and Knowledge • Analysis (analysis, comparison, recognition of patterns) • Reflection	– Terminology and knowledge related to apartment costs and budgeting – Reflection/comparison of two rental properties – Analysis of tabular information – Analysis of costs (apartment costs are affordable); consideration of start up costs, utilities and tenant's insurance – Mathematical procedures
Concepts/Connections/ Synthesis/Solutions	**Concepts** **Generally, is there a sense that the student grasped essential mathematical concepts throughout the project?** • Connections • Synthesis • Solutions	– Reading charts – Problem solving – Analysis of numbers – Realistic budgeting
Performance Level:		

Level 1 DESCRIPTORS	Level 2 DESCRIPTORS	Level 3 DESCRIPTORS
Incomplete Project: *Unclear, inconsistent or incomplete project* • Unclear arrangement; partially legible • Haphazard structure; loosely relates to requirements of project; long answer format • Disorganized ideas	**Complete Project:** *Clear and complete project* • Clear arrangement; legible • Clear structure; relates to requirements of project, project format • Organized ideas	**Clear, Complete Project:** *Clear, coherent, and complete project* • Logical and clear arrangement; legible • Structure is clear and effective for project format • Organized ideas
Limited Data: *Lacks a central focus; details are sketchy or not present* • Limited number of required elements present; difficult to follow or find some data • Incomplete exploration of concepts, patterns or relationships • Incomplete/limited, or unconnected presentation of data; some data unrelated to project	**Routine Data:** *Some focus; clarity may be limited* • All required elements present; generally easy to follow and find data • Complete exploration of data; analyzes, compares, recognizes patterns • Relevant choice of presentation of data; some data loosely connected	**Thorough/Insightful Data:** *Insightful thinking for selection of data* • All required elements present and easy to follow • Insightful exploration of data; links analysis of concepts, patterns or relationships • Relevant and connected presentation of all data
Limited Use of Mathematical Procedures: *Imprecise use of mathematical terms, principles, or procedures* • Basic procedures correct; major computational errors • Limited knowledge; inappropriate or limited use of basic terms • Weak/limited decisions/ conclusions based on data • Weak, random statements, no generalizations related to project	**General Use of Procedures:** *Appropriate use of mathematical terms, principles, or procedures* • Generally correct; some computational errors • General knowledge and appropriate use of basic terms • Relevant decisions/conclusions based on most data • Generally correct statements with stated assumptions; some generalizations related to project	**Appropriate Use of Procedures:** *Principles used appropriately while justifying the solution* • Specific/effective procedures correct; minor computational errors • Integrated use of appropriate terms and knowledge • Direct link between decisions/conclusions and data • Correct statements; appropriate justifications related to project
Partial Understanding: *Concepts throughout project are related or applied inconsistently* • Weak/partial connection between mathematical concepts and everyday activities • Some ideas are unrelated to mathematical concepts; errors in reasoning • Partial explanation of situation/context of project	**General Understanding:** *Uses general concepts throughout the project* • General connection between mathematical concepts and everyday activities described in project • Most ideas relate to mathematical concepts; logical reasoning • General explanation of situation/context of project	**Clear Understanding:** *Uses all relevant concepts throughout the project* • Focused link between mathematical concepts and everyday activities of project • All ideas link mathematical concepts together; insightful reasoning • Clear explanation of situation/context of project

Level 1	**Approaching Level 2**	**Level 2**	**Approaching Level 3**	**Level 3**

Consumer Mathematics (40S)—Project Scoring Rubric
Moving Out Project—Specific Guidelines:

Consumer 40S PROJECT Scoring Rubric		MOVING OUT PROJECT
Impression/Structure/ Organization	**Format** **Generally, is the project inviting, easy to follow, carefully constructed?** • Impression • Structure (e.g., introduction, body, conclusion, headings, sections…) • Organization of Ideas	– Title page, introduction, heading/subheadings, conclusion/justification for decisions
Data Collection/Selection/ Presentation	**Data—Content** **Is the data relevant and presented in a reader-friendly way?** • Collection (required elements) • Selection • Presentation (e.g., charts, tables, diagrams, graphs)	– Comparison of rental properties – Selection of one apartment (including rationale) – Chart of costs associated with moving – Start up costs of living away from home – List of purchases required prior to moving – Recommendations for a savings plan (budget sheet) – Justification for decisions based on economic feasibility
Reflection/Analysis/ Mathematical Procedures	**Data—Interpretation** **Has data been manipulated using consumer mathematics terminology, skills and strategies?** • Mathematical procedures • Terminology and Knowledge • Analysis (analysis, comparison, recognition of patterns) • Reflection	– Terminology and knowledge related to apartment costs and budgeting – Reflection/comparison of two rental properties – Analysis of tabular information – Analysis of costs (apartment costs are affordable); consideration of start up costs, utilities and tenant's insurance – Mathematical procedures
Concepts/Connections/ Synthesis/Solutions	**Concepts** **Generally, is there a sense that the student grasped essential mathematical concepts throughout the project?** • Connections • Synthesis • Solutions	– Reading charts – Problem solving – Analysis of numbers – Realistic budgeting
Performance Level:		

Level 1 DESCRIPTORS	Level 2 DESCRIPTORS	Level 3 DESCRIPTORS
Incomplete Project: *Unclear, inconsistent or incomplete project* • Unclear arrangement; partially legible • Haphazard structure; loosely relates to requirements of project; long answer format • Disorganized ideas	**Complete Project:** *Clear and complete project* • Clear arrangement; legible • Clear structure; relates to requirements of project, project format • Organized ideas	**Clear, Complete Project:** *Clear, coherent, and complete project* • Logical and clear arrangement; legible • Structure is clear and effective for project format • Organized ideas
Limited Data: *Lacks a central focus; details are sketchy or not present* • Limited number of required elements present; difficult to follow or find some data • Incomplete exploration of concepts, patterns or relationships • Incomplete/limited, or unconnected presentation of data; some data unrelated to project	**Routine Data:** *Some focus; clarity may be limited* • All required elements present; generally easy to follow and find data • Complete exploration of data; analyzes, compares, recognizes patterns • Relevant choice of presentation of data; some data loosely connected	**Thorough/Insightful Data:** *Insightful thinking for selection of data* • All required elements present and easy to follow • Insightful exploration of data; links analysis of concepts, patterns or relationships • Relevant and connected presentation of all data
Limited Use of Mathematical Procedures: *Imprecise use of mathematical terms, principles, or procedures* • Basic procedures correct; major computational errors • Limited knowledge; inappropriate or limited use of basic terms • Weak/limited decisions/ conclusions based on data • Weak, random statements, no generalizations related to project	**General Use of Procedures:** *Appropriate use of mathematical terms, principles, or procedures* • Generally correct; some computational errors • General knowledge and appropriate use of basic terms • Relevant decisions/conclusions based on most data • Generally correct statements with stated assumptions; some generalizations related to project	**Appropriate Use of Procedures:** *Principles used appropriately while justifying the solution* • Specific/effective procedures correct; minor computational errors • Integrated use of appropriate terms and knowledge • Direct link between decisions/conclusions and data • Correct statements; appropriate justifications related to project
Partial Understanding: *Concepts throughout project are related or applied inconsistently* • Weak/partial connection between mathematical concepts and everyday activities • Some ideas are unrelated to mathematical concepts; errors in reasoning • Partial explanation of situation/context of project	**General Understanding:** *Uses general concepts throughout the project* • General connection between mathematical concepts and everyday activities described in project • Most ideas relate to mathematical concepts; logical reasoning • General explanation of situation/context of project	**Clear Understanding:** *Uses all relevant concepts throughout the project* • Focused link between mathematical concepts and everyday activities of project • All ideas link mathematical concepts together; insightful reasoning • Clear explanation of situation/context of project

Level 1	Approaching Level 2	Level 2	Approaching Level 3	Level 3

Sample Student Response

The purpose of this sample is to assist teachers in detecting reasonable calculations and sufficient data when scoring student projects.

Comparing Rental Properties

Apartment	Cost/Month	Utilities	Advantages	Disadvantages
St. Jean	$683	heat, electricity, water, air conditioning, satellite TV, parking	balcony, hospital, shopping	more expensive, no pool, no recreation facilities, bus stop location unknown
Chateau Antoine	$630	heat, electricity, water, air conditioning	less expensive, recreation facilities, pool, hospital, bus stop	parking extra, cable TV extra

Facts considered in selecting apartment:

- Budget versus monthly apartment costs
- Proximity to shopping
- Satellite TV (to reduce entertainment costs)
- Fresh air (a balcony)
- Parking isn't an issue (using public transportation)

Start Up Costs

Item	Cost
First and last month rent	$1 366.00
Damage deposit	$341.50
Table and chairs	$200.00
Staples (sugar, flour …)	$200.00
Bath towels and face cloths	$80.00
2 lamps	$60.00
Iron	$40.00
Cleansers	$30.00
	$2 317.50
Savings to date	$1 000.00
Additional money to be saved	$1 317.50

Savings Plan

Budget for Roommates

PART A: Net Income (Annual)

Wages/Salary ($800 × 2) × 12	$19 200.00	
Other (specify)		
Average Monthly Net Income	$19 200.00 ÷ 12	$1 600.00

PART B: Expenses (Monthly)

Rent (St. Jean Apartment – 2 bedroom)	$683.00	
Food	$400.00	
Transportation (specify) bus	$40.00	
Recreation/Entertainment	$50.00	
Savings	$80.00	
Loan Payments	—	
Utilities (telephone)	$50.00	
Insurance (Standard - $500 deductible) ($158 ÷ 12)	$13.17	
Gifts/Charitable Donations	—	
Personal	$50.00	
Clothing	$50.00	
Other (specify)		
Total Expenses		$1 416.17

PART C: Balance

Monthly Net Income — Total Expenses =	$183.83
Balance	$183.83

Sample

List of Items (Purchased or Donated)

- mop and pail
- broom and dustpan
- cleansers and window cleaner
- iron and ironing board
- bath towels and face cloths
- soap and shampoo
- dining/kitchen table and chairs
- coffee/end tables
- lamp
- alarm clock
- bedroom curtains
- livingroom draperies
- food
- sugar, flour, spices

Recommendations for Savings Plan to Prepare for Moving

- Live at home (assuming no costs) for 3 more months to increase savings ($800 × 2 × 3 = $4 800)
- Save as much of income as possible for 3 months prior to moving. Restrict spending to $100 per month. ($700 × 2 × 3 = $4 200)
- Purchase no luxury items for the apartment until the month after moving.

Possible Justifications

- The advertisements for the apartments only provide partial information. A visit to the location is needed to check proximity to bus stops, neighbourhood safety, condition of apartment, etc.
- Paying the damage deposit and 2 months' rent before moving in is difficult economically. Planning and saving for a few more months is sensible.
- Because the roommates are just starting out, their possessions are limited, so I selected the lowest amount for tenant's insurance.
- I assume the roommates have stereo equipment, CD players and/or computers to reduce the amount of money to budget for entertainment.

15869

Senior 4 Consumer Mathematics (40S) Standards Test

Written Test
Student Booklet

June 2004

Manitoba
Building for the Future

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Manitoba Education, Citizenship and Youth,
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Senior 4 Consumer Mathematics (40S)
Standards Test—June 2004
Written Test Student Booklet

DESCRIPTION

Total Possible Marks: 40 **Maximum Time: 90 minutes**

This component of the test consists of five parts:

Learning Unit	Suggested Time to Complete	Marks
Personal Finance	10–15 minutes	8
Government Finances	10–15 minutes	8
Statistics	10–15 minutes	8
Variation and Formulas	10–15 minutes	8
Investments	10–15 minutes	8

- Students may use the resource package containing formulas and tables.
- Use of a scientific calculator and ruler may be necessary.
- Read all instructions on the test carefully.
- **If you need more space to answer a question, extra pages may be provided by your teacher. Write your booklet ID number and question number on any extra page(s) used and staple the additional pages into the booklet where your answer begins.**

Remember to:

- Show all your work in this booklet
- Use your resource package
- Use a scientific calculator
- Use a ruler

DIRECTIONS

- Show **complete answers** in the space(s) provided in your student booklet.
- Let the mark values for each question guide you in answering it.
- Show all your work.
- Use your resource package.
- Provide explanations and justifications.
- Use a well-organized method in communicating the answer.

Directing Words

Some questions may include directing words such as *explain*, *illustrate*, and *calculate*. These words are explained below.

The Word	The question is asking for...
identify/list/name/state	a label or title of an item, concept or method
defend/justify/support	an explanation, information, or evidence that shows why your method, idea or answer is good
describe/explain/express	words or symbols, diagrams, a chart or graph, or other, methods that **make clear** what you mean or what you are thinking
illustrate/sketch	a reasonably neat picture or diagram (not necessarily to scale) that shows or explains an idea or method
draw	a diagram to scale or graph that shows or explains an idea or method
calculate/convert/determine/find	a mathematical formula or algebraic equation or numerical calculation to solve a problem
plot	placement of a point or points on a graph

PLEASE WAIT UNTIL THE TEACHER TELLS YOU TO TURN THE PAGE.

DO NOT USE

Personal Finance

1 Mark

1. The Gauthier family bought a new house. The date of possession is July 1. The Gauthiers have agreed to pay the property taxes for July to December.
Find the amount of property taxes the Gauthiers would pay if the annual property taxes were $2 150. 118

3 Marks

2. Albert is a 33 year-old non-smoker. He wants to purchase a $100 000 term life insurance policy for 10 years. 119

   A) Find his annual premium.

   B) Find his monthly payment.

DO NOT USE

2 Marks

3. The Michelin family is moving to a new home. They have negotiated a mortgage based on the following information: 120

Purchase price: $95 000
Down Payment: $8 000
Interest Rate: 7.5%
Amortization Length: 20 years

Calculate their monthly mortgage payment.

2 Marks

4. The Johnston family has negotiated a mortgage at a 6% interest rate. 121
Calculate the missing values and use them to complete the following chart.

#	Monthly Payment	Interest	Principal	Unpaid Balance	Owner's Equity
				$80 000	$20 000
1	$512	$	$	$	$
2	$512	$	$	$	$

Government Finances

2.5 Marks

5. Marie Moss owns a house.
Calculate the amount Marie pays in total taxes for the year, using the information from the following table:

122

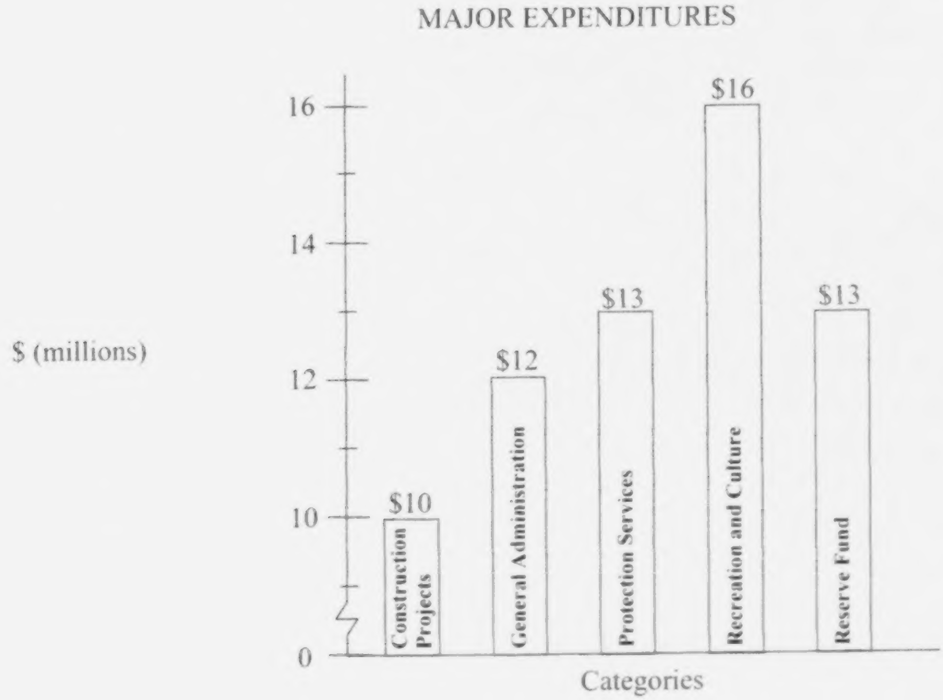
MARIE MOSS RESIDENCE	
House (current assessment)	$100 000
Land (current assessment)	$8 000
Property (portion percentage)	45%
Municipal Mill Rate	33 mills
Education Mill Rate	22 mills

DO NOT USE

1 Mark

123

6. Calculate the percentage of expenditures for Protection Services in the city of Lavallee, using the information in the graph below.



DO NOT USE

1.5 Marks

7. A service station owner sells 12 134 litres of diesel fuel in a day. Calculate the amount (in dollars) of provincial diesel fuel taxes the owner must collect and submit to the government for the 12 134 litres sold. 124

3 Marks

8. Janine planned to travel to Singapore. She converted $1 000 Canadian to Singapore dollars. She then cancelled her trip. This meant she needed to convert the Singapore dollars back to Canadian currency. 125

A) Calculate how many Singapore dollars Janine purchased.

B) Determine how many Canadian dollars Janine received when she exchanged her Singapore dollars back to Canadian currency.

C) Explain why Janine does not have $1 000 Canadian after completing her two conversions.

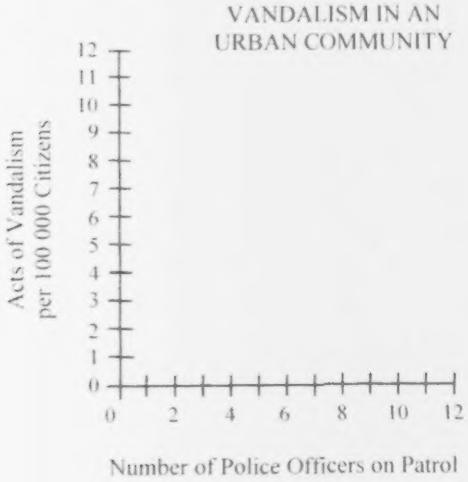
DO NOT USE

Statistics

2 Marks

9. There is a negative correlation between the number of police officers on patrol and the acts of vandalism occurring in an urban community, with an r value of -0.72. 126

A) Sketch a scatter plot of this correlation on the graph below, using approximately 15 dots.



B) Describe the relationship between the number of police officers on patrol and the number of acts of vandalism.

DO NOT USE

2 Marks

10. Mr. Elendiuk calculated the marks for his Senior 4 project. He found the marks had a normal distribution with a standard deviation of 4%. The mean was 63%. There were 30 students in his class. 127

A) Find how many students scored between 59% and 67%.

B) One of the students claims the project was too hard. Mr. Elendiuk disagrees. Support either point of view using standard deviation and the normal curve.

DO NOT USE

1 Mark

11. John, Sarah and 3 other students each earned a mark of 72% on their last test. A total of 58 students wrote the test. Thirty-five students received a mark lower than 72%. Calculate the percentile ranking of John and Sarah. 128

1 Mark

12. The following statistics indicate the value of cars in Plattsville: 129

P_{10} = \$5 500 P_{25} = \$7 900 P_{43} = \$9 450

P_{50} = \$14 200 P_{75} = \$18 400 P_{90} = \$23 600

A) Determine the percent of cars with a value less than \$7 900.

B) Determine the percent of cars that are between \$14 200 and \$18 400.

DO NOT USE

2 Marks

130

13. The Happy Smile High Consumer Mathematics (40S) class has a mean of 67% and a standard deviation of 9. The teacher gives a 5% bonus to each student.

    A) Explain how the bonus affects the class mean.

    B) Explain how the bonus affects the standard deviation of the class.

DO NOT USE

Variation and Formulas

3 Marks

14. A lawyer charges a fixed cost of $50 plus an hourly rate of $125 per hour. 131

A) Calculate the cost of the services of a lawyer for each of the hours worked.

Number of Hours	0	1	2	3
Cost				

B) Plot the information from the chart in graph form. Use the graph paper provided below.

Lawyer Fees

C) State the type of variation represented by the lawyer's fees. ____________________

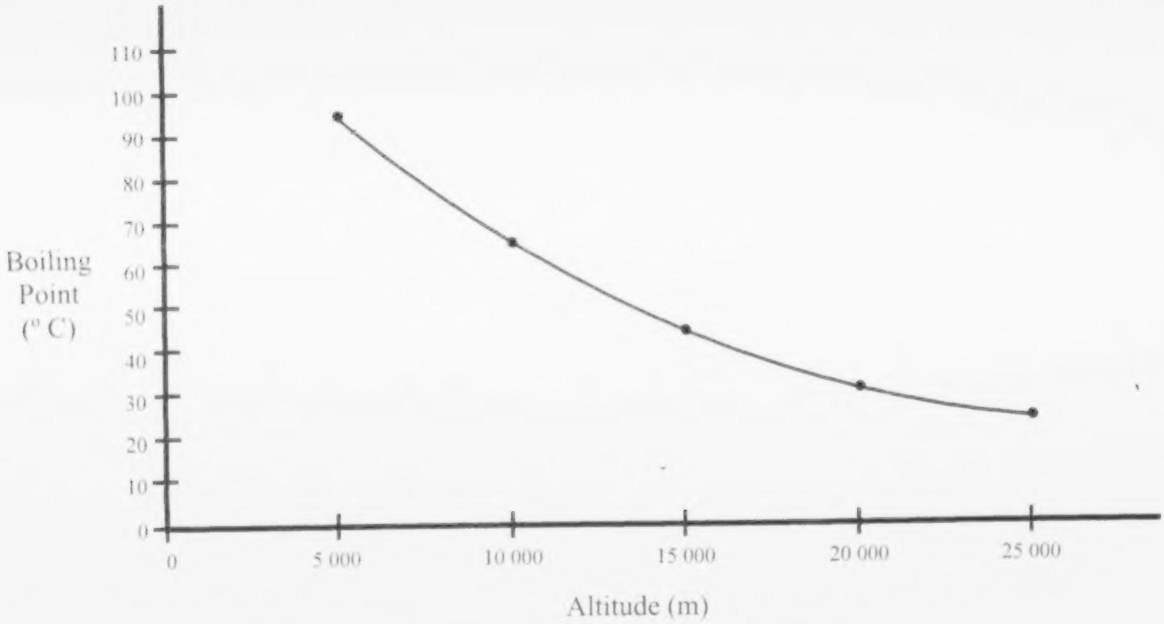
DO NOT USE

2 Marks

132

15. The following graph shows the relation between the boiling point (in Celsius) of a liquid and the altitude (in metres) above sea level.

Boiling Point of a Liquid Between 5 000 m and 25 000 m



A) Identify the type of variation shown in the graph.

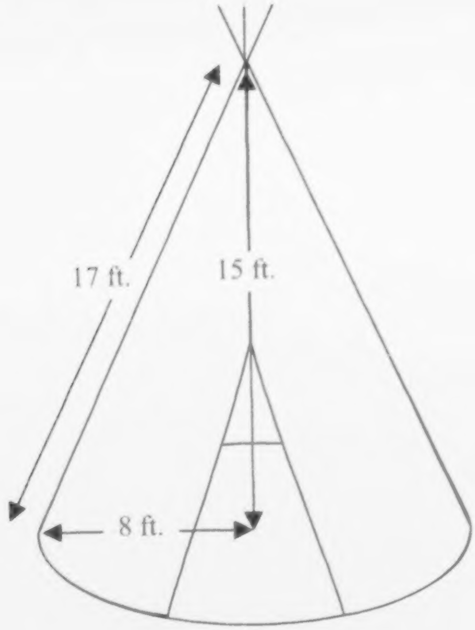
B) Describe the relationship between the variables.

DO NOT USE

1 Mark

133

16. An historical encampment that includes a traditional tepee has been constructed at The Forks in Winnipeg.
    Find the volume of the tepee.



DO NOT USE

1 Mark

134

17. A sportscar stopped at a red light. When the light turned green, it accelerated at a rate of 5.56m/s^2 (metres per second squared).
Determine how many seconds it took the sportscar to reach a final speed of 26.7m/s, using the following formula:

$a = \frac{f - i}{t}$ where
a = *rate of acceleration*
f = *final speed*
i = *beginning (initial) speed*
t = *time in seconds*

DO NOT USE

1 Mark

18. A baseball is dropped from the top of a tower. The table below indicates the distance the ball travels for different intervals of time.

135

Time (t) in seconds	Distance (d) in metres
2	39.2
3	88.2

Solve for the constant of variation, k, using the equation $d = kt^2$.

DO NOT USE

Investments

1.5 Marks

19. Sally wishes to purchase 430 shares of Barbapapa Ltd. at $8.55 a share. Her broker charges her 3% commission.
Calculate the total cost of purchasing the shares, including brokerage fees. 136

DO NOT USE

1 Mark

137

20. A homeowner finds that her Debt Equity Ratio is approximately 40%, while her neighbour's is approximately 15%.
State which financial situation is more favourable and explain why.

4 Marks

138

21. Bob's financial situation includes the following:

house	$125 000
mortgage	$110 000
car	$15 000
loan	$12 000
credit card	$5 000
registered savings plan	$9 000
savings account	$3 000

A) Complete the following table based on Bob's financial situation.

BOB'S FINANCES		TOTAL
Assets		
Liabilities		
Net Worth		

B) Calculate Bob's debt equity ratio.

C) Bob is considering a vacation to Mazatlan. The tour package (including flight and accommodations) costs $2 645. Bob would need a loan for this amount.
Explain whether Bob should go to Mazatlan, using the value found for his debt equity ratio.

DO NOT USE

139

1.5 Marks

22.

Thursday, April 22, 2004

Name of Company	Stock Symbol	High	Low	Close	Net Change	Volume (000's)
Abbott	ABT	19.25	19.05	19.05	-0.05	82
Bancroft	BCT	13.13	10.71	12.62	-0.30	1 003
Colonial	CLL	22.74	22.60	22.64	-0.11	970
Dumpty	DPY	1.60	1.59	1.60	-0.10	77
Fisher	FSR	0.13	0.13	0.13	-0.005	200
Wallace	WLC	0.34	0.27	0.31	+0.04	623
Hudson	HDN	13.50	13.37	13.45	+0.05	315
Lummox	LMM	44.10	43.75	43.75	-0.29	1 063
Tropical	TPL	10.45	10.25	10.45	+0.35	141
Zenron	ZNR	71.71	71.71	71.71	+1.71	2

A) Identify the stock that had the greatest decrease in value from Wednesday, April 21 to Thursday, April 22, 2004.

B) Name the stock that is the most expensive.

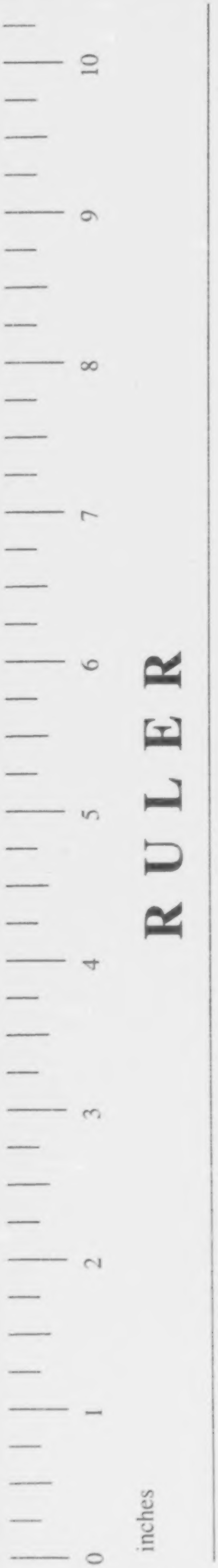
C) Name the stock that had the greatest number of shares traded.

Senior 4 Consumer Mathematics (40S) Standards Test

Written Test Resource Package

2004

Manitoba
Building for the Future



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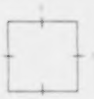
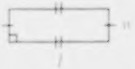
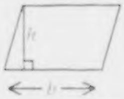
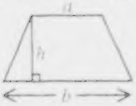
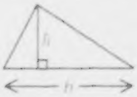
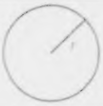
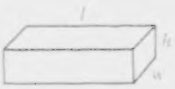
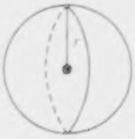
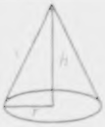
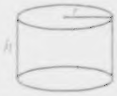
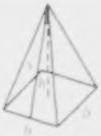
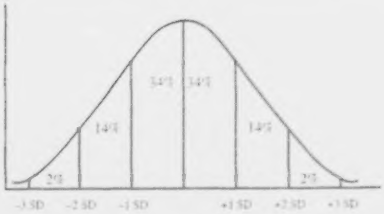
Formula List

Name of Formula	Diagram	Formula
area of a square		$A = s^2$
area of a rectangle		$A = lw$
area of a parallelogram		$A = bh$
area of a trapezoid		$A = \frac{1}{2}(a+b)h$
area of a triangle		$A = \frac{1}{2}bh$
area of a circle		$A = \pi r^2$

surface area of a rectangular solid		$SA = 2lw + 2lh + 2wh$
volume of a rectangular solid		$V = lwh$
surface area of a sphere		$SA = 4\pi r^2$
volume of a sphere		$V = \frac{4}{3}\pi r^3$
surface area of a cone		$SA = \pi rs + \pi r^2$
volume of a cone		$V = \frac{1}{3}\pi r^2 h$
surface area of a cylinder		$SA = 2\pi rh + 2\pi r^2$
volume of a cylinder		$V = \pi r^2 h$
surface area of a pyramid		$SA = 2bs + b^2$
volume of a pyramid		$V = \frac{1}{3}b^2 h$

Formula List

Name of Formula	Diagram	Formula
Normal Distribution	 	
Standard Deviation	$\sum$ = sum S = standard deviation x = observed score $\bar{x}$ = mean n = total number of observations	$S=\sqrt{\frac{\sum(x-\bar{x})^2}{n-1}}$
Percentile Rank	B = number of raw scores below the given score E = number of raw scores equal to the given score, including the given score n = total number of raw scores	$P=\left(\frac{B+0.5E}{n}\right)\times 100$
Direct Variation	A = dependent variable k = constant of variation B = independent variable	$A=kB$
Inverse Variation	A = dependent variable k = constant of variation B = independent variable	$A=\frac{k}{B}$
Partial Variation	C = dependent variable k = constant of variation n = independent variable F = fixed value	$C=F+kn$

Temperature	F = degrees Fahrenheit C = degrees Celsius	$F=\frac{9}{5}C+32$ $C=\frac{5}{9}(F-32)$

Formula List

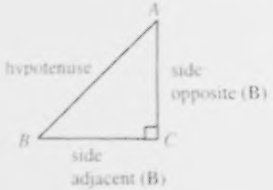
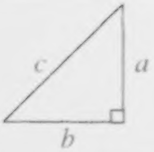
Name of Formula	Diagram	Formula
trigonometric formulas for right-angled triangles	 A hypotenuse side opposite (B) B C side adjacent (B)	$\sin \angle B = \frac{\text{side opposite}}{\text{hypotenuse}}$ $\cos \angle B = \frac{\text{side adjacent}}{\text{hypotenuse}}$ $\tan \angle B = \frac{\text{side opposite}}{\text{side adjacent}}$
Pythagorean Theorem for right triangles		$c^2 = a^2 + b^2$
Simple Interest	P = principal r = annual interest rate t = time in years I = interest	$I = Prt$
Compound Interest	A = *final amount* P = *principal* r = *annual interest rate* n = *number of times a year interest is compounded* t = *time in years*	$A = P\left(1 + \frac{r}{n}\right)^{nt}$
Gross Debt Service Ratio		$\text{GDSR} = \frac{\text{Monthly Mortgage Payment} + \text{Monthly Heating Cost} + \text{Monthly Property Taxes}}{\text{Gross Salary}} \times 100$
Debt Equity Ratio		$\text{DER} = \frac{\text{Total Liabilities} - \text{Mortgage}}{\text{Net Worth}} \times 100\ [= \%]$
Net Worth		Net Worth = Assets – Total Liabilities
Property Tax Rate		$\text{PTR} = \frac{\text{Total Revenue Required}}{\text{Total Portioned Assessment}} \times 1000\ [= \text{mills}]$
Gasoline Tax	Gasoline: 11.5¢/L Diesel Fuel: 10.9¢/L	
Tobacco Taxes	per cigarette: 8¢ per carton (of 200 cigarettes): $16.00 loose tobacco: 5.3¢ per gram	

Table 1: 10-Year Term Insurance

	Term Plus											
	Male Non-Smoker			Female Non-Smoker			Male Smoker			Female Smoker		
	Issue Rate per $1000			Issue Rate per $1000			Issue Rate per $1000			Issue Rate per $1000		
AGE	$100 000 $249 999	$250 000 $499 999	$500 000 $3 000 000	$100 000 $249 999	$250 000 $499 999	$500 000 $3 000 000	$100 000 $249 999	$250 000 $499 999	$500 000 $3 000 000	$100 000 $249 999	$250 000 $499 999	$500 000 $3 000 000
20	0.85	0.81	0.77	0.80	0.76	0.73	1.43	1.36	1.30	1.32	1.25	1.20
21	0.85	0.81	0.77	0.80	0.76	0.73	1.43	1.36	1.30	1.32	1.25	1.20
22	0.85	0.81	0.77	0.80	0.76	0.73	1.43	1.36	1.30	1.32	1.25	1.20
23	0.85	0.81	0.77	0.80	0.76	0.73	1.43	1.36	1.30	1.32	1.25	1.20
24	0.85	0.81	0.77	0.80	0.76	0.73	1.43	1.36	1.30	1.32	1.25	1.20
25	0.85	0.81	0.77	0.80	0.76	0.73	1.43	1.36	1.30	1.32	1.25	1.20
26	0.86	0.82	0.78	0.80	0.76	0.73	1.47	1.40	1.34	1.33	1.27	1.21
27	0.87	0.83	0.79	0.80	0.76	0.73	1.52	1.44	1.39	1.34	1.28	1.22
28	0.88	0.84	0.80	0.80	0.76	0.73	1.56	1.49	1.42	1.35	1.29	1.23
29	0.89	0.85	0.81	0.80	0.76	0.73	1.61	1.53	1.46	1.36	1.30	1.24
30	0.90	0.86	0.82	0.80	0.76	0.73	1.65	1.57	1.51	1.38	1.31	1.25
31	0.96	0.91	0.87	0.86	0.82	0.78	1.78	1.69	1.62	1.47	1.40	1.34
32	1.02	0.97	0.93	0.92	0.87	0.84	1.91	1.82	1.74	1.57	1.50	1.43
33	1.08	1.03	0.98	0.98	0.93	0.89	2.05	1.95	1.86	1.67	1.58	1.52
34	1.14	1.08	1.04	1.04	0.99	0.95	2.18	2.07	1.98	1.77	1.68	1.62
35	1.20	1.14	1.09	1.10	1.05	1.00	2.31	2.20	2.10	1.87	1.78	1.71
36	1.34	1.27	1.22	1.17	1.11	1.06	2.60	2.46	2.37	2.02	1.93	1.84
37	1.48	1.41	1.35	1.24	1.18	1.13	2.88	2.74	2.62	2.18	2.07	1.98
38	1.62	1.54	1.47	1.31	1.24	1.19	3.17	3.01	2.88	2.33	2.21	2.12
39	1.76	1.67	1.60	1.38	1.31	1.26	3.45	3.28	3.15	2.49	2.37	2.27
40	1.90	1.81	1.73	1.45	1.38	1.32	3.74	3.55	3.40	2.64	2.51	2.40
41	2.06	1.96	1.87	1.56	1.48	1.42	4.22	4.02	3.84	2.90	2.76	2.64
42	2.22	2.11	2.02	1.67	1.59	1.52	4.71	4.48	4.28	3.17	3.01	2.88
43	2.38	2.26	2.17	1.78	1.69	1.62	5.19	4.93	4.73	3.43	3.26	3.12
44	2.54	2.41	2.31	1.89	1.80	1.72	5.68	5.39	5.17	3.70	3.51	3.37
45	2.70	2.57	2.46	2.00	1.90	1.82	6.16	5.85	5.61	3.96	3.76	3.61
46	3.03	2.88	2.76	2.23	2.12	2.03	6.60	6.27	6.01	4.49	4.27	4.08
47	3.36	3.19	3.06	2.46	2.34	2.24	7.04	6.69	6.40	5.02	4.76	4.57
48	3.69	3.51	3.36	2.69	2.56	2.45	7.48	7.11	6.81	5.54	5.27	5.05
49	4.02	3.82	3.66	2.92	2.77	2.66	7.92	7.52	7.21	6.07	5.76	5.52
50	4.35	4.13	3.96	3.15	2.99	2.87	8.36	7.94	7.61	6.60	6.27	6.01
51	4.88	4.64	4.44	3.40	3.23	3.09	9.26	8.80	8.43	7.24	6.88	6.59
52	5.41	5.14	4.92	3.65	3.47	3.32	10.16	9.66	9.25	7.88	7.48	7.17
53	5.94	5.64	5.41	3.90	3.71	3.55	11.07	10.52	10.07	8.51	8.09	7.74
54	6.47	6.15	5.89	4.15	3.94	3.78	11.97	11.37	10.89	9.15	8.69	8.33
55	7.00	6.65	6.37	4.40	4.18	4.00	12.87	12.23	11.72	9.79	9.31	8.91
56	7.60	7.22	6.92	4.91	4.66	4.47	13.60	12.91	12.38	10.52	9.99	9.57
57	8.20	7.79	7.46	5.42	5.15	4.93	14.32	13.61	13.04	11.24	10.68	10.23
58	8.80	8.36	8.01	5.93	5.63	5.40	15.05	14.30	13.70	11.97	11.37	10.89
59	9.40	8.93	8.55	6.44	6.12	5.86	15.77	14.98	14.36	12.69	12.06	11.55
60	10.00	9.50	9.10	6.95	6.60	6.32	16.50	15.68	15.02	13.42	12.75	12.21
61	11.60	11.02	10.56	7.86	7.47	7.15	18.70	17.77	17.02	14.87	14.12	13.53
62	13.20	12.54	12.01	8.77	8.33	7.98	20.90	19.86	19.02	16.32	15.51	14.85
63	14.80	14.06	13.47	9.68	9.20	8.81	23.10	21.95	21.02	17.78	16.89	16.18
64	16.40	15.58	14.92	10.59	10.06	9.64	25.30	24.04	23.02	19.23	18.27	17.50
65	18.00	17.10	16.38	11.50	10.93	10.47	27.50	26.13	25.03	20.68	19.65	18.82
66	19.60	18.62	17.84	12.41	11.79	11.29	29.70	28.22	27.03	22.13	21.02	20.14
67	21.10	21.14	19.29	13.32	12.65	12.12	31.90	30.31	29.03	23.58	22.41	21.46
68	22.80	21.66	20.75	14.23	13.52	12.95	34.10	32.40	31.03	25.04	23.78	22.78
69	24.40	23.18	22.20	15.14	14.38	13.78	36.30	34.49	33.03	26.49	25.17	24.10
70	26.00	24.70	23.66	16.05	15.25	14.61	38.50	36.58	35.04	27.94	26.54	25.42
71	27.60	26.22	25.12	16.96	16.11	15.43	40.70	38.67	37.04	29.39	27.92	26.75
72	29.20	27.74	26.57	17.87	16.98	16.26	42.90	40.76	39.04	30.84	29.30	28.07
73	30.80	29.26	28.03	18.78	17.84	17.09	45.10	42.85	41.04	32.30	30.68	29.39
74	32.40	30.78	29.48	19.69	18.71	17.92	47.30	44.94	43.04	33.75	32.07	30.71

Add policy fee of $75 per year
Semi-annual payment (multiply annual premium by 0.52)
Monthly payment (multiply annual premium by 0.09)

Table 2: Whole-Life Insurance

	WHOLE-LIFE				
	Male Non-Smoker	**Female Non-Smoker**	**Male Smoker**	**Female Smoker**	
	Issue Rate Per $1000	Issue Rate Per $1000	Issue Rate Per $1000	Issue Rate Per $1000	
Issue Age	Premium Rate	Premium Rate	Premium Rate	Premium Rate	Issue Age
18	3.50	2.82	4.31	3.13	18
19	3.54	2.85	4.41	3.20	19
20	3.60	2.89	4.51	3.26	20
21	3.96	3.04	4.72	3.44	21
22	4.07	3.20	4.93	3.62	22
23	4.17	3.35	5.15	3.81	23
24	4.28	3.51	5.36	3.99	24
25	4.38	3.66	5.57	4.17	25
26	4.61	3.86	5.88	4.41	26
27	4.82	4.05	6.19	4.66	27
28	5.05	4.25	6.49	4.90	28
29	5.26	4.44	6.80	5.15	29
30	5.46	4.64	7.11	5.39	30
31	5.76	4.90	7.56	5.72	31
32	6.03	5.16	8.01	6.04	32
33	6.30	5.41	8.45	6.37	33
34	6.59	5.67	8.90	6.69	34
35	7.11	5.93	9.35	7.02	35
36	7.32	6.31	10.04	7.50	36
37	7.78	6.70	10.74	7.98	37
38	8.25	7.08	11.43	8.47	38
39	8.71	7.47	12.13	8.95	39
40	9.28	7.85	12.82	9.43	40
41	9.75	8.42	13.86	10.14	41
42	10.32	8.99	14.90	10.85	42
43	10.90	9.55	15.95	11.55	43
44	11.48	10.12	16.99	12.26	44
45	12.40	10.69	18.03	12.97	45
46	12.81	11.21	19.15	13.68	46
47	13.55	11.73	20.28	14.38	47
48	14.28	12.26	21.38	15.09	48
49	15.02	12.78	22.49	15.79	49
50	16.34	13.30	23.61	16.50	50
51	16.70	14.03	25.06	17.44	51
52	17.63	14.76	26.52	18.38	52
53	18.56	15.49	27.97	19.32	53
54	19.51	16.22	29.43	20.26	54
55	21.15	16.95	30.88	21.20	55
56	21.79	17.93	32.73	22.39	56
57	23.17	18.91	34.57	23.58	57
58	24.53	19.89	36.42	24.78	58
59	25.89	20.87	38.26	25.97	59
60	27.70	21.85	40.11	27.16	60
61	29.32	23.21	42.40	28.71	61
62	31.39	24.57	44.70	30.25	62
63	33.45	25.93	46.99	31.80	63
64	35.52	27.29	49.29	33.34	64
65	37.58	28.65	51.58	34.89	65
66	39.73	30.08	54.48	36.29	66
67	41.95	31.59	56.60	37.74	67
68	44.33	33.17	58.81	39.25	68
69	46.83	34.82	61.12	40.82	69
70	49.45	36.57	63.51	42.45	70
71	52.22	38.39	65.96	44.15	71
72	55.15	40.31	68.56	45.91	72
73	58.23	42.33	71.23	47.75	73
74	61.50	44.45	74.01	49.66	74
75	64.94	46.67	76.89	51.65	75

	Male Under 18	**Female Under 18**	
	Issue Rate Per $1000	Issue Rate Per $1000	
Issue Age	Premium Rate	Premium Rate	Issue Age
0	1.75	1.53	0
1	1.78	1.56	1
2	1.80	1.59	2
3	1.89	1.63	3
4	1.98	1.67	4
5	2.05	1.71	5
6	2.12	1.75	6
7	2.24	1.82	7
8	2.35	1.89	8
9	2.47	1.97	9
10	2.58	2.05	10
11	2.71	2.16	11
12	2.83	2.27	12
13	3.01	2.34	13
14	3.19	2.41	14
15	3.31	2.50	15
16	3.42	2.58	16
17	3.48	2.68	17

Add policy fee of $75.00 per year.

Semi-annual payment (multiply annual premium by 0.52)
Monthly payment (multiply annual premium by 0.09)

Table 3: Cash Surrender Values

WHOLE-LIFE

MALE Cash Surrender Value per $1000 of Sum Assured Issue Age											Policy Year	FEMALE Cash Surrender Value per $1000 of Sum Assured Issue Age										
20	25	30	35	40	45	50	55	60	65	70		20	25	30	35	40	45	50	55	60	65	70
0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
1	1	1	2	3	5	7	9	11	15	18	4	1	1	1	1	2	4	5	7	9	12	16
2	3	4	6	8	14	18	23	28	35	41	5	1	2	3	5	7	11	14	19	24	30	37
4	6	8	11	14	23	29	36	44	54	64	6	3	4	6	8	11	18	23	30	38	48	58
6	8	11	15	20	32	40	50	61	74	87	7	4	6	9	12	16	25	33	42	52	65	79
7	10	14	19	25	40	51	64	78	94	110	8	6	8	11	15	20	32	42	53	67	83	100
8	13	18	24	30	49	62	77	94	113	133	9	7	10	14	19	24	40	51	65	81	100	121
10	15	21	28	36	58	73	91	111	133	156	10	9	12	16	22	29	47	60	76	95	118	142
14	21	29	38	52	91	109	130	152	175	201	11	12	17	23	30	42	75	91	111	133	158	186
17	27	37	48	68	124	145	168	193	218	245	12	15	22	29	38	55	103	122	146	171	199	231
21	34	44	58	83	157	181	207	234	260	290	13	18	27	36	46	68	131	154	181	208	239	275
24	40	52	68	99	190	217	246	275	303	335	14	20	32	42	55	81	160	185	216	246	280	319
28	46	60	78	115	223	252	284	316	345	380	15	23	37	49	63	94	188	216	251	284	320	364
33	54	73	94	141	256	288	323	356	387	424	16	28	44	59	76	116	216	247	285	321	361	408
39	62	86	110	167	289	324	362	397	430	469	17	32	50	70	89	138	244	278	320	359	401	453
44	69	99	126	193	322	360	401	438	472	514	18	37	56	80	103	159	273	310	355	397	442	497
50	77	112	142	219	355	396	439	479	515	558	19	41	63	91	116	181	301	341	390	434	482	542
55	85	125	158	245	388	432	478	520	557	603	20	46	69	102	129	203	329	372	425	472	523	586
63	96	140	181	284	405	451	499	544	587	626	21	52	78	114	149	237	348	393	448	498	555	627
71	107	154	204	324	423	470	520	588	615	650	22	59	87	126	168	272	367	414	471	525	587	669
78	117	169	226	363	440	489	541	592	645	673	23	65	96	138	188	306	387	435	494	551	618	710
86	128	183	249	403	458	508	562	616	675	698	24	71	105	151	207	341	406	456	517	578	650	752
94	139	198	272	442	475	527	582	640	705	726	25	78	114	163	226	375	425	477	540	604	682	793
105	154	217	312	458	493	546	603	664	734	756	26	87	126	179	262	393	444	498	563	630	714	834
116	168	236	353	474	510	565	624	688	764	794	27	96	139	195	297	411	463	519	586	657	746	876
127	183	254	393	490	528	583	645	712	793	841	28	105	151	212	332	429	482	539	609	683	777	917
138	197	273	434	506	545	602	666	736	823	906	29	114	163	228	367	446	502	560	632	710	809	959
149	212	292	474	522	563	621	687	760	852	1000	30	124	176	244	402	464	521	581	655	736	841	1000
164	231	333	489	538	580	640	708	784	882	-	31	136	192	276	419	482	540	602	678	762	873	-
179	250	374	504	554	598	659	729	808	911	-	32	149	209	308	436	500	559	623	701	789	905	-
193	269	415	519	570	615	678	749	832	941	-	33	161	225	340	453	518	578	644	724	815	936	-
208	288	456	534	585	633	697	770	856	970	-	34	174	241	372	470	536	597	665	747	842	968	-
223	307	497	549	601	650	716	791	880	1000	-	35	186	258	404	487	554	617	686	770	868	1000	-
242	348	511	564	617	668	735	812	904	-	-	36	202	287	421	505	571	536	707	798	894	-	-
261	389	526	579	633	685	754	833	928	-	-	37	219	316	438	522	589	655	728	816	921	-	-
280	429	540	594	649	703	773	854	952	-	-	38	235	345	455	539	607	674	749	839	947	-	-
299	470	554	609	665	720	792	875	976	-	-	39	252	375	472	556	625	693	770	862	974	-	-
318	511	589	624	681	738	811	896	1000	-	-	40	268	404	489	573	643	712	791	885	1000	-	-
357	525	583	639	697	755	830	916	-	-	-	41	295	421	506	590	661	732	812	908	-	-	-
395	539	598	654	713	773	849	937	-	-	-	42	322	438	523	607	679	751	833	931	-	-	-
434	553	612	669	729	790	867	958	-	-	-	43	350	455	540	624	696	770	853	954	-	-	-
472	567	626	684	745	808	886	979	-	-	-	44	377	472	557	641	714	789	874	977	-	-	-
511	581	641	699	761	825	905	1000	-	-	-	45	404	489	574	658	732	808	895	1000	-	-	-
525	595	655	714	777	843	924	-	-	-	-	46	421	506	591	675	750	827	916	-	-	-	-
539	609	669	729	793	860	943	-	-	-	-	47	438	523	608	692	768	847	937	-	-	-	-
553	623	684	745	809	878	962	-	-	-	-	48	455	540	625	710	786	866	958	-	-	-	-
567	637	698	760	825	895	981	-	-	-	-	49	472	557	642	727	804	885	979	-	-	-	-
581	651	713	775	841	913	1000	-	-	-	-	50	489	574	659	744	821	904	1000	-	-	-	-
595	665	727	790	857	930	-	-	-	-	-	51	506	591	676	761	839	923	-	-	-	-	-
609	679	741	805	872	948	-	-	-	-	-	52	523	608	693	778	857	942	-	-	-	-	-
623	693	756	820	888	965	-	-	-	-	-	53	540	625	711	795	875	962	-	-	-	-	-
637	707	770	835	904	983	-	-	-	-	-	54	557	642	728	812	893	981	-	-	-	-	-
651	721	784	850	920	1000	-	-	-	-	-	55	574	659	745	829	911	1000	-	-	-	-	-
665	735	799	865	936	-	-	-	-	-	-	56	591	676	762	846	929	-	-	-	-	-	-
679	749	813	880	952	-	-	-	-	-	-	57	608	693	779	863	946	-	-	-	-	-	-
693	762	828	895	968	-	-	-	-	-	-	58	625	711	796	880	964	-	-	-	-	-	-
707	776	842	910	984	-	-	-	-	-	-	59	642	728	813	897	982	-	-	-	-	-	-
721	790	856	925	1000	-	-	-	-	-	-	60	659	745	830	915	1000	-	-	-	-	-	-
735	804	871	940	-	-	-	-	-	-	-	61	676	762	847	932	-	-	-	-	-	-	-
749	818	885	955	-	-	-	-	-	-	-	62	693	779	864	949	-	-	-	-	-	-	-
762	832	899	970	-	-	-	-	-	-	-	63	711	796	881	966	-	-	-	-	-	-	-
776	846	914	985	-	-	-	-	-	-	-	64	728	813	898	983	-	-	-	-	-	-	-
790	860	928	1000	-	-	-	-	-	-	-	65	745	830	915	1000	-	-	-	-	-	-	-
804	874	943	-	-	-	-	-	-	-	-	66	762	847	932	-	-	-	-	-	-	-	-
818	888	957	-	-	-	-	-	-	-	-	67	779	864	949	-	-	-	-	-	-	-	-
832	902	971	-	-	-	-	-	-	-	-	68	796	881	966	-	-	-	-	-	-	-	-
846	916	986	-	-	-	-	-	-	-	-	69	813	898	983	-	-	-	-	-	-	-	-
860	930	1000	-	-	-	-	-	-	-	-	70	830	915	1000	-	-	-	-	-	-	-	-
874	944	-	-	-	-	-	-	-	-	-	71	847	932	-	-	-	-	-	-	-	-	-
888	958	-	-	-	-	-	-	-	-	-	72	864	949	-	-	-	-	-	-	-	-	-
902	972	-	-	-	-	-	-	-	-	-	73	881	966	-	-	-	-	-	-	-	-	-
916	986	-	-	-	-	-	-	-	-	-	74	898	983	-	-	-	-	-	-	-	-	-
930	1000	-	-	-	-	-	-	-	-	-	75	915	1000	-	-	-	-	-	-	-	-	-
944	-	-	-	-	-	-	-	-	-	-	76	932	-	-	-	-	-	-	-	-	-	-
958	-	-	-	-	-	-	-	-	-	-	77	949	-	-	-	-	-	-	-	-	-	-
972	-	-	-	-	-	-	-	-	-	-	78	966	-	-	-	-	-	-	-	-	-	-
986	-	-	-	-	-	-	-	-	-	-	79	983	-	-	-	-	-	-	-	-	-	-
1000	-	-	-	-	-	-	-	-	-	-	80	1000	-	-	-	-	-	-	-	-	-	-

Every effort has been made to ensure the accuracy of the above values, but accuracy is not guaranteed. In the event of a discrepancy, the insurance policy governs.

Table 4: Tenant's Package Policy

Tenant's Package Policy ($500 deductible)		
All Areas – Manitoba		
Coverage Amount	**Standard Form**	**Comprehensive Form**
$25 000	$158.00	$200.00
$30 000	$174.00	$226.00
$35 000	$199.00	$252.00
$40 000	$212.00	$269.00
$45 000	$235.00	$298.00
$50 000	$254.00	$324.00
$55 000	$272.00	$346.00
$60 000	$293.00	$373.00
$65 000	$315.00	$400.00
$70 000	$337.00	$427.00
$75 000	$359.00	$454.00
Each additional $1000	$4.50	$5.50

$200 deductible – Increase premium by 10%

Table 5: Manitoba Homeowner's Insurance Rates

Manitoba Homeowner's Insurance Rates ($500 deductible)								
Boeckh Calculator	**Metro Winnipeg**		**Area 2**		**Area 3**		**Area 4**	
Amount	Standard	Comprehensive	Standard	Comprehensive	Standard	Comprehensive	Standard	Comprehensive
$ 50 000	195	214	147	161	196	216	261	287
$ 55 000	216	238	160	176	217	239	289	318
$ 60 000	237	260	173	190	237	261	315	347
$ 65 000	252	277	187	205	255	281	339	373
$ 70 000	266	303	200	220	270	297	359	395
$ 75 000	294	314	210	231	285	314	379	417
$ 80 000	310	323	221	243	302	332	402	462
$ 85 000	318	333	226	249	313	344	416	458
$ 90 000	324	349	231	254	324	356	431	474
$ 95 000	348	370	244	268	345	380	459	505
$100 000	364	393	260	286	361	397	480	528
$105 000	390	417	278	306	378	416	503	553
$110 000	402	441	293	322	393	432	523	575
$115 000	418	464	299	329	409	450	544	598
$120 000	436	487	309	340	424	466	564	620
$125 000	451	510	319	351	444	488	591	650
$130 000	472	543	339	373	466	513	620	682
$135 000	498	557	345	380	477	525	634	697
$140 000	523	580	358	394	496	546	660	726
$145 000	538	596	375	413	508	559	676	744
$150 000	550	604	385	424	520	572	692	761
$155 000	557	613	398	438	551	606	733	806
$160 000	565	622	413	454	569	626	757	833
$165 000	572	629	425	468	589	648	783	861
$170 000	590	647	441	485	609	670	810	891
$175 000	607	668	451	496	624	686	830	913
$180 000	620	686	466	513	648	713	862	948
$185 000	636	702	478	526	667	734	887	976
$190 000	652	717	492	541	705	776	938	1032
$195 000	678	742	504	554	720	792	958	1054
$200 000	692	771	519	571	726	799	966	1063
Additional Amounts per $1000 coverage	Add: $3.15	Add: $3.50	Add: $2.75	Add: $3.03	Add: $3.55	Add: $3.91	Add: $4.72	Add: $5.19

$200 deductible – Increase premium by 10%

Table 6: Amortization Period of Mortgage Loan

Amortization Period of Mortgage Loan
(Blended payment of principal and interest per $1000 of loan)

Interest Rate	5 years	10 years	15 years	20 years	25 years
4.00%	$18.40	$10.11	$7.38	$6.04	$5.26
4.25%	18.51	10.23	7.50	6.17	5.40
4.50%	18.62	10.34	7.63	6.30	5.53
4.75%	18.74	10.46	7.75	6.44	5.67
5.00%	18.85	10.58	7.88	6.57	5.82
5.25%	18.96	10.70	8.01	6.71	5.96
5.50%	19.07	10.82	8.14	6.84	6.10
5.75%	19.19	10.94	8.27	6.98	6.25
6.00%	19.30	11.07	8.40	7.12	6.40
6.25%	19.41	11.19	8.53	7.26	6.55
6.50%	19.53	11.31	8.66	7.41	6.70
6.75%	19.64	11.43	8.80	7.55	6.85
7.00%	19.75	11.56	8.93	7.70	7.00
7.25%	19.87	11.68	9.07	7.84	7.16
7.50%	19.98	11.81	9.21	7.99	7.32
7.75%	20.10	11.94	9.34	8.13	7.47
8.00%	20.21	12.06	9.48	8.28	7.63
8.25%	20.33	12.19	9.62	8.43	7.79
8.50%	20.45	12.32	9.76	8.59	7.95
8.75%	20.56	12.45	9.90	8.74	8.12
9.00%	20.68	12.58	10.05	8.89	8.28
9.25%	20.80	12.71	10.19	9.05	8.44
9.50%	20.91	12.84	10.33	9.20	8.61
9.75%	21.03	12.97	10.48	9.36	8.78
10.00%	21.15	13.10	10.62	9.52	8.94
10.25%	21.27	13.24	10.77	9.68	9.11
10.50%	21.38	13.37	10.92	9.84	9.28
10.75%	21.50	13.50	11.06	9.99	9.45
11.00%	21.62	13.64	11.21	10.16	9.63
11.25%	21.74	13.77	11.36	10.32	9.80
11.50%	21.86	13.91	11.51	10.48	9.97
11.75%	21.98	14.04	11.66	10.65	10.14
12.00%	22.10	14.18	11.82	10.81	10.32
12.25%	22.22	14.32	11.97	10.98	10.49
12.50%	22.34	14.46	12.12	11.14	10.67
12.75%	22.46	14.59	12.28	11.31	10.85
13.00%	22.58	14.73	12.43	11.48	11.02
13.25%	22.70	14.87	12.59	11.64	11.20
13.50%	22.82	15.01	12.74	11.81	11.38
13.75%	22.94	15.15	12.90	11.98	11.56
14.00%	23.07	15.29	13.06	12.15	11.74
14.25%	23.19	15.43	13.21	12.32	11.92
14.50%	23.31	15.58	13.37	12.49	12.10
14.75%	23.43	15.72	13.53	12.67	12.28
15.00%	23.56	15.86	13.69	12.84	12.46
15.25%	23.68	16.00	13.85	13.01	12.64
15.50%	23.80	16.15	14.01	13.18	12.83
15.75%	23.92	16.29	14.17	13.36	13.01
16.00%	24.05	16.44	14.33	13.53	13.19

*** Interest compounded semi-annually. Actual payment amount may differ slightly.**

Table 7: Canadian Dollar-Based Rates

Canadian Dollar Based Rates (CAN $)			
Bank Buying Rate	**Country**	**Currency**	**Bank Selling Rate**
0.8580	Australia	Dollar (A$)	1.0244
0.0889	Austria	Schilling	0.1226
0.0318	Belgium	Franc (BF)	0.0398
0.1759	Denmark	Krone (DKr)	0.2131
2.2597	England	Pound	2.4513
1.4441	Euro	Euro	1.4870
0.2131	Finland	Mark	0.2743
0.2008	France	Franc (FF)	0.2384
0.6954	Germany	Mark	0.7845
0.003576	Greece	Drachma	0.005124
0.1643	Hong Kong	Dollar ($HK)	0.2032
0.000670	Italy	Lire	0.000821
0.01276	Japan	Yen	0.01480
0.1271	Mexico	Peso	0.1855
0.6079	Netherlands	Guilder	0.7062
0.6727	New Zealand	Dollar ($NZ)	0.8082
2.2597	N. Ireland	Pound	2.4887
0.1640	Norway	Krone (NKr)	0.1968
0.00654	Portugal	Escudo	0.00804
2.2597	Scotland	Pound	2.4958
0.7322	Singapore	Dollar (S $)	0.9792
1.6951	S. Ireland	Punt	1.9977
0.00792	Spain	Peseta	0.00957
0.1534	Sweden	Krone (SKr)	0.1843
0.8177	Switzerland	Franc (SwF)	0.9666
1.4215	United States	Dollar (US $)	1.4600

Friday, January 21, 2000

Table 8: Customs Duties and Foreign Exchange

	Group	Custom Duties	Excise Taxes
Costume Jewellery	NAFTA[1]	0%	10% > $3.00 per item
	MFN[2]	8.5%	10% > $3.00 per item
	GP[3]	0%	0%
Tablecloth (flax)	NAFTA	0%	0%
	MFN	10%	0%
	GP	0%	0%
Wristwatches	NAFTA	0%	10% > $50.00 per item
	MFN	5%	10% > $50.00 per item
	GP	4%	10% > $50.00 per item
Precious Jewellery	NAFTA	0%	10%
	MFN	5.5%	10%
	GP	4%	10%
Foot Gear	NAFTA	0%	0%
	MFN	20%	0%
Plastic Trays	NAFTA	0%	0%
	MFN	10.5%	0%
	GP	6%	0%
Jeans	NAFTA	0%	0%
	MFN	20%	0%
	GP	None	0%
Metal Bed	NAFTA	0%	0%
	MFN	8%	0%
	GP	5%	0%
House Paint	NAFTA	0%	0%
	MFN	6.5%	0%
	GP	3%	0%
Cars	NAFTA	0%	$100.00 for air conditioning
	MFN	6.7%	$100.00 for air conditioning
	GP	6%	$100.00 for air conditioning

[1] Trade agreement for "duty free" goods from U.S.A. and Mexico.

[2] Most Favoured Nation includes most countries not listed under NAFTA and GP.

[3] General Preferential (GP) status entitles China, India and many Latin American countries special lower rates for customs duties.

RULER

cm 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

Senior 4 Consumer Mathematics (40S)
Standards Test

Written Test
Marking Guide

June 2004

Manitoba

Building for the Future

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Table of Contents

Marking Guidelines iii

Presentation of the Student Samples iv

    Personal Finance 1

    Government Finances 11

    Statistics 23

    Variation and Formulas 34

    Investments 48

Marking Guidelines

The marking guide for the Written Test for the Senior 4 Consumer Mathematics (40S) Standards Test is based on the outcomes and standards found in the *Senior 4 Mathematics: Outcomes and Standards* document (2001).

The marking guide is designed to assess a wide range of student performance. Specific mark allocations for each step in a given test item are provided to distinguish levels of student performance and to offer consistency in scoring student responses.

The marking guide also illustrates two types of general marking procedures related to student conceptual errors and student arithmetical errors. These recommended procedures are indicated by the following text boxes:

DEDUCTION TO TOTAL SCORE:

Deduct ½ mark for transposition of a number or minor error that follows through to the solution of a task.

MARKING CAP:

Students earn a maximum of ½ the total value of the test item for using a correct strategy with incorrect values from a table or chart or using values from an incorrect table or chart.

Marking guides are never able to fully anticipate the variety of possible student responses. The *Senior 4 Consumer Mathematics Written Test Marking Guide* provides a variety of strategies most commonly used by students during pilot testing and when solving similar mathematics-related tasks.

For each sample test item, a marking guide and student samples with scores and rationales are provided to help focus and clarify the marking criteria. Student responses are presented in order of increasing levels of performance.

The recommended procedure for scoring student responses is as follows:

1. Read the *Written Test Marking Guide*.
2. Study the student samples provided and the rationales for the allotted scores.
3. Determine the mark for the student's response by comparing its features with the *Written Test Marking Guide* descriptions. The descriptions and samples only typify a student's response to a given question; an exact match is not anticipated.

Presentation of the Student Samples

Each constructed-response question is presented using the following sections:

Test Item number

Type of Test Item

Unit of Study

Maximum Number of Marks Allotted

Question 11 Restricted Response **Statistics** (1 Mark)

This section presents the test item as it appears in the student booklet, including how marks should be allotted.

Test Item and Marking Guide **V-F2**

John, Sarah and 3 other students each earned a mark of 72% on their last test. A total of 58 students wrote the test. Thirty-five students received a mark lower than 72%.
Calculate the percentile ranking of John and Sarah.

Answer: $\underbrace{\frac{35+0.5(5)}{58}}_{\frac{1}{2}\text{ mark (substitution)}} \times 100 = \underbrace{64.7}_{\frac{1}{2}\text{ mark (solution)}}$

Other possible solutions:
Percentile ranking = 65th (rounded up) percentile
Student may truncate response: 64th percentile

Question 11 Restricted Response **Statistics** (1 Mark)

Sample 1

John, Sarah and 3 other students each earned a mark of 72% on their last test. A total of 58 students wrote the test. Thirty-five students received a mark lower than 72%.
Calculate the percentile ranking of John and Sarah.

5/58 got 72%
35/58 were lower 72%
18/58 got other
5/58 = 8.6

This section presents student sample responses with the mark(s) allotted and the rationale justifying the mark(s) allotted.

Mark: 0 out of 1
Rationale: - No formula, no substitution

Personal Finance

Question 1 Restricted Response **Personal Finance** (1 Mark)

Test Item and Marking Guide

V-C3

The Gauthier family bought a new house. The date of possession is July 1. The Gauthiers have agreed to pay the property taxes for July to December.
Find the amount of property taxes the Gauthiers would pay if the annual property taxes were $2 150.

Answer:

$$\$2\,150 \times \underbrace{\frac{6}{12}}_{\frac{1}{2}\text{ mark}} = \underbrace{\$1\,075}_{\frac{1}{2}\text{ mark}}$$

OR

$$\$2\,150 \times \underbrace{0.5}_{\frac{1}{2}\text{ mark}} = \underbrace{\$1\,075}_{\frac{1}{2}\text{ mark}}$$

Question 1 Restricted Response **Personal Finance** (1 Mark)

Sample 1

The Gauthier family bought a new house. The date of possession is July 1. The Gauthiers have agreed to pay the property taxes for July to December.
Find the amount of property taxes the Gauthiers would pay if the annual property taxes were $2 150.

2 150 ÷ 12 = 179.16

5 x 179.16 = $895.80

The Gauthier family would pay $895.80
in property taxes from July to December.

Mark: 0.5 out of 1
Rationale: - Correct division by 12 but incorrect counting of months

DEDUCTION TO TOTAL SCORE:

Deduct ½ mark for minor error (incorrect counting of months).

Question 1 Restricted Response **Personal Finance** (1 Mark)

- **Sample 2**

The Gauthier family bought a new house. The date of possession is July 1. The Gauthiers have agreed to pay the property taxes for July to December.
Find the amount of property taxes the Gauthiers would pay if the annual property taxes were $2 150.

Jan
Feb
March
April
May
June
July
August
September
October
November
December

$$\begin{array}{r} 2150 \\ \times \quad 6 \\ \hline \end{array}$$

$\$12900 \div 12 = \$1\,075$

Mark: 1 out of 1
Rationale: - Correct answer with work shown

Question 2 Restricted Response **Personal Finance** (3 Marks)

◆ Test Item and Marking Guide **V-C1**

Albert is a 33 year-old non-smoker. He wants to purchase a $100 000 term life insurance policy for 10 years.

A) Find his annual premium.

Answer:

$$\underbrace{\frac{100\,000}{1\,000} \text{ or } 100}_{\frac{1}{2}\text{ mark}} \times \underbrace{1.08 \text{ from table}}_{\frac{1}{2}\text{ mark}} = \underbrace{\$108}_{\frac{1}{2}\text{ mark}}$$

$$\$108 + \underbrace{\$75 \text{ policy fee}}_{\frac{1}{2}\text{ mark}} = \$183 \text{ annual premium}$$

NOTE TO MARKER:

If no work is shown, maximum 1 mark for correct final answer.

B) Find his monthly payment.

Answer:

$$\$183 \times \underbrace{0.09 \text{ from table}}_{\frac{1}{2}\text{ mark}} = \underbrace{\$16.47 \text{ month}}_{\frac{1}{2}\text{ mark}}$$

NOTE TO MARKER:

Students who find the monthly payment by dividing by 12 months earn no marks for Part B.

Question 2 Restricted Response **Personal Finance** (3 Marks)

◆ **Sample 1**

Albert is a 33 year-old non-smoker. He wants to purchase a $100 000 term life insurance policy for 10 years.

A) Find his annual premium.

6.30 = 6300

B) Find his monthly payment.

6300 × 0.09 = $567.00

Mark: 1 out of 3
Rationale: - No loss of mark in B
Because of error in A (1 mark)

Question 2 Restricted Response **Personal Finance** (3 Marks)

◆ **Sample 2**

Albert is a 33 year-old non-smoker. He wants to purchase a $100 000 term life insurance policy for 10 years.

A) Find his annual premium.

1.08 x 100 = 108

B) Find his monthly payment.

Mark: 1.5 out of 3

Rationale: - Mental calculation $\left(\frac{100\,000}{1\,000}\right)$ (½ mark)
- Correct value from table (½ mark)
- Correct product $108 (½ mark)
- No attempt in B

◆ **Sample 3**

Albert is a 33 year-old non-smoker. He wants to purchase a $100 000 term life insurance policy for 10 years.

A) Find his annual premium.

$1.08 \times 100 = 108 + 75 = \boxed{\$183}$

B) Find his monthly payment.

$\$183 \times 0.09 = \boxed{\$16.47}$

Mark: 3 out of 3
Rationale: - Mental calculation $\left(\frac{100\,000}{1\,000}\right)$ (½ mark)
- Correct value from table (1.08) (½ mark)
- Policy fee (½ mark)
- Correct annual premium (½ mark)
- Correct value (0.09) from table (½ mark)
- Correct solution (½ mark)

Question 3 Restricted Response **Personal Finance** (2 Marks)

Test Item and Marking Guide **V-C2**

The Michelin family is moving to a new home. They have negotiated a mortgage based on the following information:

Purchase price: $95 000
Down Payment: $8 000
Interest Rate: 7.5%
Amortization Length: 20 years

Calculate their monthly mortgage payment.

Answer: $\underbrace{95\,000 - 8\,000}_{\frac{1}{2}\text{ mark}} = 87\,000$

$$\underset{\underbrace{\text{or } 87}_{\frac{1}{2}\text{ mark}}}{\frac{87\,000}{1\,000}} \times \underbrace{7.99 \text{ from table}}_{\frac{1}{2}\text{ mark}} = \underbrace{\$695.13}_{\frac{1}{2}\text{ mark}}$$

Question 3 Restricted Response **Personal Finance** (2 Marks)

Sample 1

The Michelin family is moving to a new home. They have negotiated a mortgage based on the following information:

Purchase price: $95 000
Down Payment: $8 000
Interest Rate: 7.5%
Amortization Length: 20 years

Calculate their monthly mortgage payment.

95000 - 8000 ÷ 7 990 = 10 888.6 ÷ 12 = 907.38

Mark: 0.5 out of 2
Rationale: - Subtraction of down payment (½ mark)

Question 3 Restricted Response **Personal Finance** (2 Marks)

◆ Sample 2

The Michelin family is moving to a new home. They have negotiated a mortgage based on the following information:

Purchase price: $95 000
Down Payment: $8 000
Interest Rate: 7.5%
Amortization Length: 20 years

Calculate their monthly mortgage payment.

7.99 x 95 = $759.05

Mark: 1.5 out of 2
Rationale: - Incorrect value for mortgage amount, down payment not subtracted
- Mental calculation $\left(\frac{95\,000}{1\,000}\right)$ (½ mark)
- Correct table value 7.99 (½ mark)
- Error carried through to final value (½ mark)

Question 3 Restricted Response **Personal Finance** (2 Marks)

◆ Sample 3

The Michelin family is moving to a new home. They have negotiated a mortgage based on the following information:

Purchase price: $95 000
Down Payment: $8 000
Interest Rate: 7.5%
Amortization Length: 20 years

Calculate their monthly mortgage payment.

95 000 − 8 000 = 87 000
7.99 × 87 = 695.13

Mark: 2 out of 2
Rationale: - Correct answer with work shown

Question 4 Restricted Response **Personal Finance** (2 Marks)

Test Item and Marking Guide

V-C2

The Johnston family has negotiated a mortgage at a 6% interest rate.
Calculate the missing values and use them to complete the following chart.

#	Monthly Payment	Interest	Principal	Unpaid Balance	Owner's Equity
				$80 000.00	$20 000.00
1	$512.00	$	$	$	$
2	$512.00	$	$	$	$

Answer:

#	*Monthly Payment*	*Interest*	*Principal*	*Unpaid Balance*	*Owner's Equity*	
				$80 000.00	$20 000.00	
1	$512.00	*$400.00*	*$112.00*	*$79 888.00*	*$20 112.00*	*1 mark (entire row)*
2	$512.00	*$399.44*	*$112.56*	*$79 775.44*	*$20 224.56*	*1 mark (entire row)*

NOTE TO MARKER:
½ mark for correct interest calculation per row
½ mark for correct remaining calculations per row

½ mark deduction for students who carry through a calculation error (not conceptual)

Question 4 Restricted Response **Personal Finance** (2 Marks)

- **Sample 1**

The Johnston family has negotiated a mortgage at a 6% interest rate.
Calculate the missing values and use them to complete the following chart.

#	Monthly Payment	Interest	Principal	Unpaid Balance	Owner's Equity
	▨	▨	▨	$80 000.00	$20 000.00
1	$512.00	$ 400	$ 112	$ 79 488	$ 20 512
2	$512.00	$ 397.44	$ 114.56	$ 78 976	$ 21 024

80 000 x .06 = 4 800

4 800 ÷ 12 = $400 interest 112 principal

79 488 x .06 = 4769.28 ÷ 12 = 397.44 interest 114.56 principal

Mark: 1 out of 2
Rationale: - Correct interest calculations (2 × ½ mark)
- Concept error in calculation of unpaid balance and owners equity

Question 4 Restricted Response **Personal Finance** (2 Marks)

◆ Sample 2

The Johnston family has negotiated a mortgage at a 6% interest rate.
Calculate the missing values and use them to complete the following chart.

#	Monthly Payment	Interest	Principal	Unpaid Balance	Owner's Equity
	▨	▨	▨	$80 000.00	$20 000.00
1	$512.00	$ 300	$ 212	$ 79 788	$ 20 212
2	$512.00	$ ~~[illegible]~~ $297.88	$ 214.12	$ 79 573.88	$ 20 426.12

$$\begin{array}{r} 80\ 000 \\ -20\ 000 \\ \hline 60\ 000 \end{array} \times 6\% = 3\ 600 \div 12 = \$300$$

$$\begin{array}{r} 79\ 788 \\ -20\ 212 \\ \hline 59\ 576 \end{array} \times 6\% = \overset{3\ 574.56}{\cancel{[illegible]}} \div 12 = \$297.88$$

Mark: 1.5 out of 2
Rationale: - ½ mark deduction for incorrect interest calculation

Government Finances

Question 5 Restricted Response **Government Finances** (2.5 Marks)

- **Test Item and Marking Guide** **V-E7**

Marie Moss owns a house.
Calculate the amount Marie pays in total taxes for the year, using the information from the following table:

MARIE MOSS RESIDENCE	
House (current assessment)	$100 000
Land (current assessment)	$8 000
Property (portion percentage)	45%
Municipal Mill Rate	33 mills
Education Mill Rate	22 mills

Answer:

$$\left.\begin{array}{l}\$100\,000 \times 45\% = \$45\,000 \\ \$8\,000 \times 45\% = \underline{\$3\,600}\end{array}\right\} (\tfrac{1}{2} \text{ mark})$$

$$\$48\,600 \quad (\tfrac{1}{2} \text{ mark})$$

OR

$$\underbrace{\$108\,000 \times 45\%}_{\frac{1}{2} \text{ mark}} = \underbrace{\$48\,600}_{\frac{1}{2} \text{ mark}}$$

AND

$$\text{Mill Rate: } 33 + 22 = \underbrace{55}_{\frac{1}{2} \text{ mark}}$$

AND

$$\$48\,600 \div \underbrace{1\,000}_{\frac{1}{2} \text{ mark}} \times 55 = \underbrace{\$2\,673}_{\frac{1}{2} \text{ mark}} \qquad \text{OR} \qquad \$48\,600 \times \underbrace{.055}_{\frac{1}{2} \text{ mark}} = \underbrace{\$2\,673}_{\frac{1}{2} \text{ mark}}$$

OR

$$\left.\begin{array}{l}\$48\,600 \times 0.022 = \$1\,069.20 \\ \$48\,600 \times 0{,}033 = \$1\,603.80\end{array}\right\} \tfrac{1}{2} \text{ mark} = \underbrace{\$2\,673.00}_{\frac{1}{2} \text{ mark}}$$

Question 5 Restricted Response **Government Finances** (2.5 Marks)

◆ Sample 1

Marie Moss owns a house.
Calculate the amount Marie pays in total taxes for the year, using the information from the following table:

MARIE MOSS RESIDENCE	
House (current assessment)	$100 000
Land (current assessment)	$8 000
Property (portion percentage)	45%
Municipal Mill Rate	33 mills
Education Mill Rate	22 mills

100000 + 8 000 = 108 000 X 45 % = $48 600 x 33 x 22

= $3 528.36

↓

taxes
she
pays

Mark: 1 out of 2.5
Rationale: - Correct addition of land and property
- Correct multiplication of 45%

- **Sample 2**

Marie Moss owns a house.
Calculate the amount Marie pays in total taxes for the year, using the information from the following table:

MARIE MOSS RESIDENCE	
House (current assessment)	$100 000
Land (current assessment)	$8 000
Property (portion percentage)	45%
Municipal Mill Rate	33 mills
Education Mill Rate	22 mills

100 000 x 45 = 45 000.00
58 000 x 45 = 26 100.00
158 000 71 100.00

municipal
71 100.00 x 33 ÷ 1 000 = 2 346.30

71 100.00 x 22 ÷ 1 000 = 1 564.20
education

2 346.30 + 1 564.20 = 3 910.50 − 250 =
3 660.50

Mark: 2 out of 2.5
Rationale:
- Transpositional error (land $58 000 instead of $8 000) (½ mark deduction)
- No deduction for subtraction of 250 (Manitoba Education and Property Tax Credit Advance)

- **Sample 3**

Marie Moss owns a house.
Calculate the amount Marie pays in total taxes for the year, using the information from the following table:

MARIE MOSS RESIDENCE	
House (current assessment)	$100 000
Land (current assessment)	$8 000
Property (portion percentage)	45%
Municipal Mill Rate	33 mills
Education Mill Rate	22 mills

100 000 + 8 000 = 108 000

108 000 x 0.45 = 48 600

48 600 x 0.033 = 1 603.80

48 600 x 0.022 = 1 069.20

+

$ 51 273

Mark: 2 out of 2.5

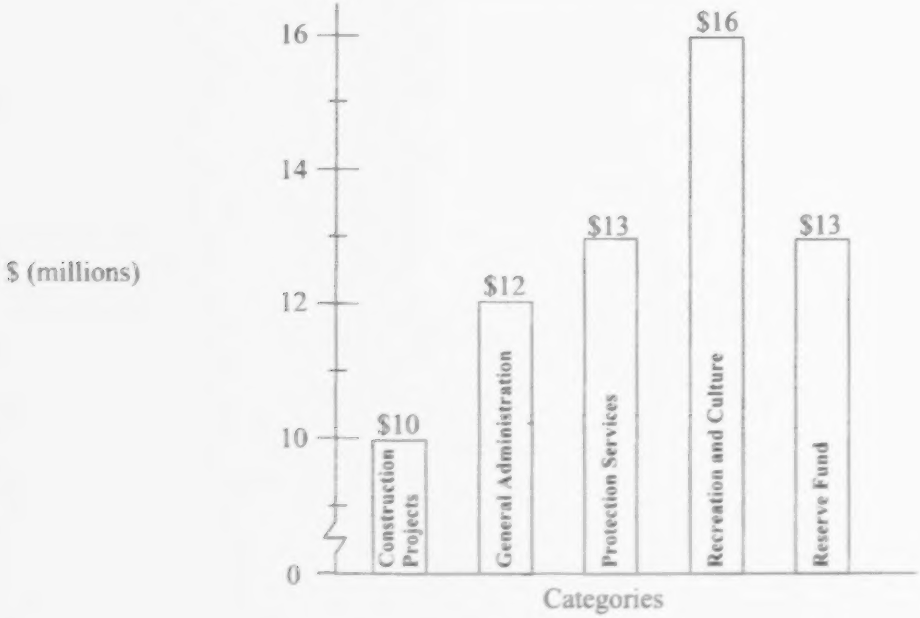
Rationale: - All complete and correct except total portioned assessment added to tax levies (amounts)

Question 6 Restricted Response **Government Finances** (1 Mark)

◆ Test Item and Marking Guide V-E1

Calculate the percentage of expenditures for Protection Services in the city of Lavallee, using the information in the graph below.

MAJOR EXPENDITURES



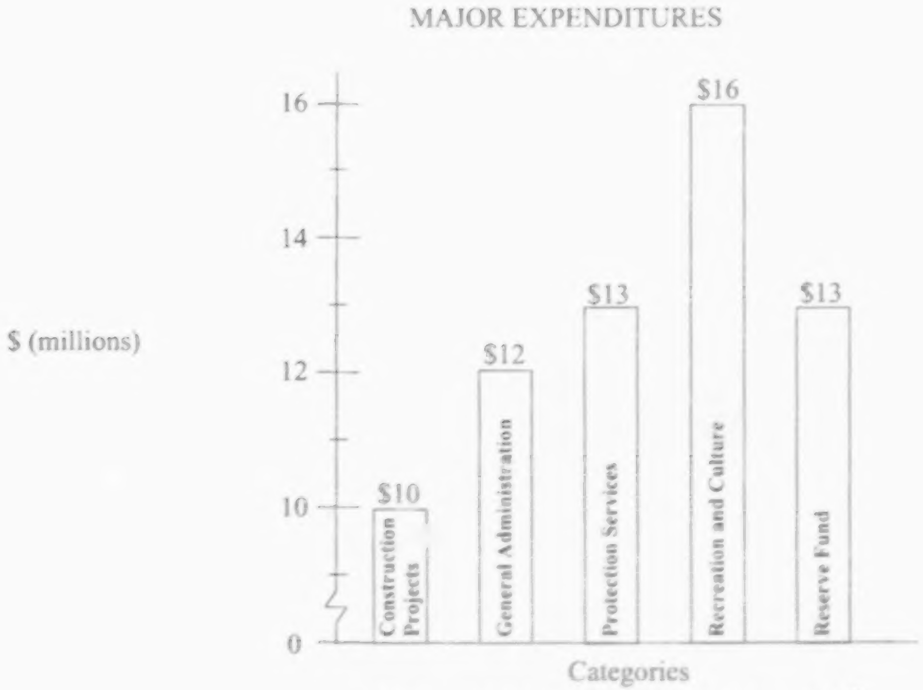
Answer : $\dfrac{\$\ \text{protection services}}{\$\ \text{total expenditures}} \times 100 = \%$

$$\underbrace{\frac{13}{64}}_{\frac{1}{2}\text{ mark}} \times 100 = \underbrace{20.3\%}_{\frac{1}{2}\text{ mark}}$$

Question 6 Restricted Response **Government Finances** (1 Mark)

- **Sample 1**

Calculate the percentage of expenditures for Protection Services in the city of Lavallee, using the information in the graph below.



0.1 0.12 0.13 0.16 0.13

0.1

0.12

0.13

0.16

+ 0.13

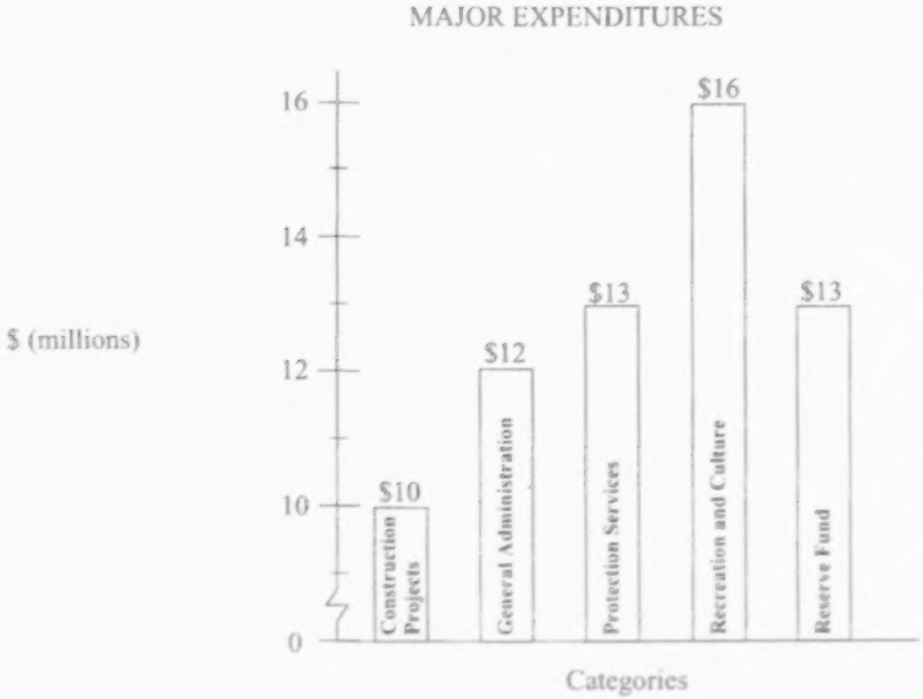
0.64 %

Mark: 0 out of 1
Rationale: - No criteria met for marks

Question 6 Restricted Response **Government Finances** (1 Mark)

- **Sample 2**

Calculate the percentage of expenditures for Protection Services in the city of Lavallee, using the information in the graph below.



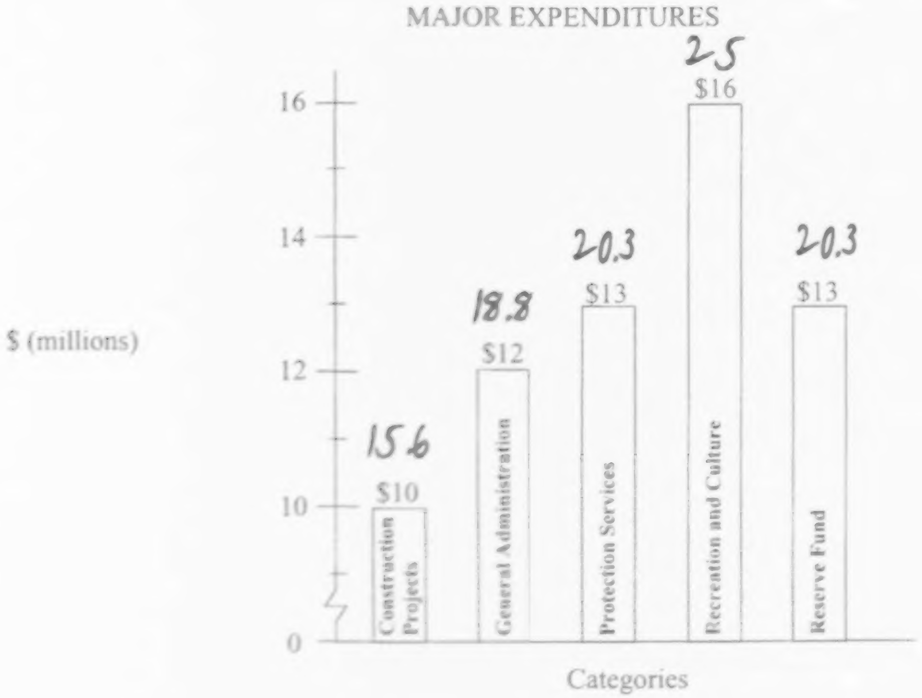
10 + 12 + 13 + 16 + 13 = 64

16 – 25%
13 = 20% (x2)
12 = 19%
10 = 16%
64 = 100%

Mark: 1 out of 1
Rationale: - $13 million is not labelled as protection services (trivial error), no marks deducted

◆ **Sample 3**

Calculate the percentage of expenditures for Protection Services in the city of Lavallee, using the information in the graph below.



$10 + $12 + $13 + $16 + $13 = $64

Protection services = $13

$13/64 × 100 = 20.3%

Mark: 1 out of 1
Rationale: - All complete and correct

Question 7 Restricted Response **Government Finances** (1.5 Mark)

Test Item and Marking Guide

V-E5

A service station owner sells 12 134 litres of diesel fuel in a day.
Calculate the amount (in dollars) of provincial diesel fuel taxes the owner must collect and submit to the government for the 12 134 litres sold.

Answer:

$$12\,134 \times \underbrace{\$.109}_{\text{1 mark}} = \underbrace{\$1\,322.61}_{\frac{1}{2}\text{ mark}}$$

OR

$$12\,134 \times \underbrace{10.9\text{¢}}_{\frac{1}{2}\text{ mark}} = 132{,}260.6\text{¢}$$

AND

$$1\,32260.6\text{¢} \div \underbrace{100}_{\frac{1}{2}\text{ mark}} = \underbrace{\$1322.61}_{\frac{1}{2}\text{ mark}}$$

Question 7 Restricted Response **Government Finances** (1.5 Mark)

Sample 1

A service station owner sells 12 134 litres of diesel fuel in a day.
Calculate the amount (in dollars) of provincial diesel fuel taxes the owner must collect and submit to the government for the 12 134 litres sold.

12 134 x .115 = $1 395.41

Mark: 1 out of 1.5
Rationale: - Used gas tax rate instead of diesel tax rate
- Marking cap in effect round up to (1 mark)

Question 7 Restricted Response **Government Finances** (1.5 Mark)

Sample 2

A service station owner sells 12 134 litres of diesel fuel in a day.
Calculate the amount (in dollars) of provincial diesel fuel taxes the owner must collect and submit to the government for the 12 134 litres sold.

12 134 x .109 = $1 322.61 x .07 = 92.58
92.58 x 2 = 185.126 + 1 322.61 = $1 507.77

Mark: 1 out of 1.5
Rationale: - Correct but added PST and GST
- Minor error (½ mark deduction)

Question 8 Restricted Response **Government Finances** (3 Marks)

◆ Test Item and Marking Guide **V-E4**

Janine planned to travel to Singapore. She converted $1 000 Canadian to Singapore dollars. She then cancelled her trip. This meant she needed to convert the Singapore dollars back to Canadian currency.

A) Calculate how many Singapore dollars Janine purchased.

Answer:

$$\frac{1}{x} = \underbrace{\frac{0.9792}{1\,000}}_{\substack{\text{½ mark} \\ \text{(for table value)}}} \quad \therefore \quad \underbrace{x = \$1\,021.24}_{\text{½ mark}} \quad \text{OR} \quad \frac{1\,000}{\underbrace{0.9792}_{\substack{\text{½ mark} \\ \text{(for table value)}}}} = \underbrace{\$1\,021.24}_{\text{½ mark}}$$

B) Determine how many Canadian dollars Janine received when she exchanged her Singapore dollars back to Canadian currency.

Answer:

$$\frac{1}{1021.24} = \frac{0.7322}{\underbrace{x}_{\substack{\text{½ mark} \\ \text{(for table value)}}}} \quad \therefore \quad \underbrace{x = \$747.75}_{\text{½ mark}} \quad \text{OR} \quad 1021.24 \times \underbrace{0.7322}_{\text{½ mark}} = \underbrace{\$747.75}_{\text{½ mark}}$$

(for table value)

C) Explain why Janine does not have $1 000 Canadian after completing her two conversions.

Sample Answers:

- *The bank is a business out to make money.*
- *The bank is providing a service and charges a fee.*
- *The bank has to now deal with the foreign currency.*

1 mark for an appropriate answer

Question 8 Restricted Response **Government Finances** (3 Marks)

Sample 1

Janine planned to travel to Singapore. She converted $1 000 Canadian to Singapore dollars. She then cancelled her trip. This meant she needed to convert the Singapore dollars back to Canadian currency.

A) Calculate how many Singapore dollars Janine purchased.

1 000 × .9792 = 979.2 Singapore dollars

B) Determine how many Canadian dollars Janine received when she exchanged her Singapore dollars back to Canadian currency.

979.2 ÷ .7322 = 1 337.34

C) Explain why Janine does not have $1 000 Canadian after completing her two conversions.

because you make money from a bank

Mark: 1 out of 3

Rationale: - Correct values from table in A and B (½ mark each)
- Incorrect solutions in A and B
- Incorrect response in C

Question 8 Restricted Response **Government Finances** (3 Marks)

- **Sample 2**

Janine planned to travel to Singapore. She converted \$1 000 Canadian to Singapore dollars. She then cancelled her trip. This meant she needed to convert the Singapore dollars back to Canadian currency.

A) Calculate how many Singapore dollars Janine purchased.

$$\frac{1\,000}{0.9792} = \$1021.24 \text{ singapore dollars}$$

B) Determine how many Canadian dollars Janine received when she exchanged her Singapore dollars back to Canadian currency.

$$\frac{\$1021.24}{0.7322} = \$1\,394.76$$

C) Explain why Janine does not have \$1 000 Canadian after completing her two conversions.

Mark: 1.5 out of 3
Rationale: - Correct answer in A (1 mark)
- Correct value from table in B (½ mark)
- No attempt in C

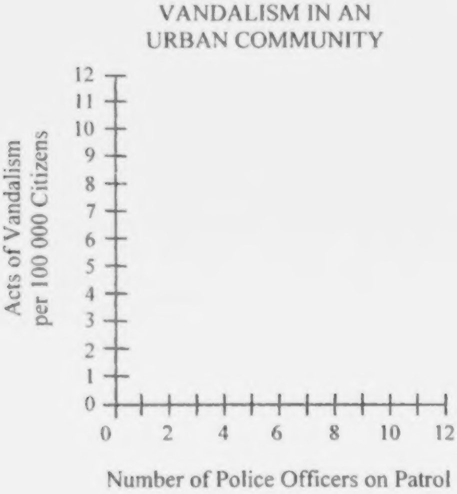
Statistics

Question 9 Restricted Response **Statistics** (2 Marks)

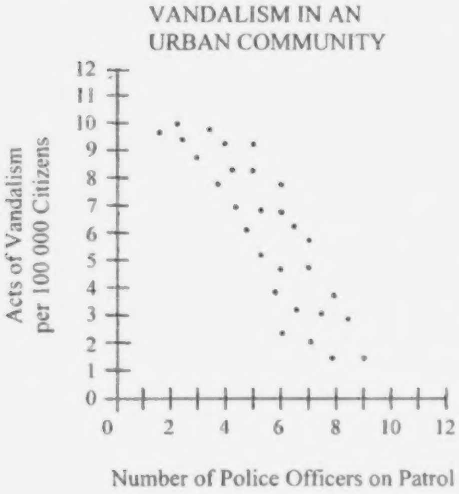
- **Test Item and Marking Guide** **V-F1, F6**

There is a negative correlation between the number of police officers on patrol and the acts of vandalism occurring in an urban community, with an r value of -0.72.

A) Sketch a scatter plot of this correlation on the graph below, using approximately 15 dots.



Answer:



← *1 mark*

B) Describe the relationship between the number of police officers on patrol and the number of acts of vandalism.

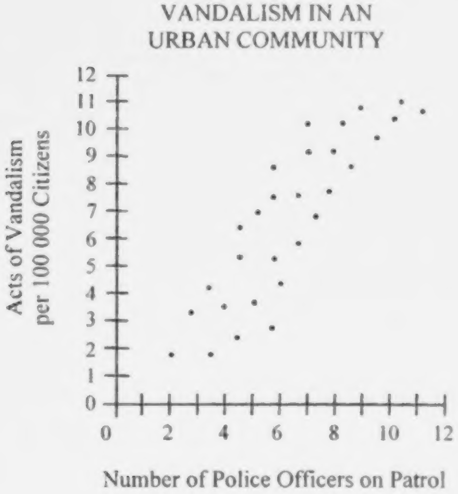
Answer: The more police officers on patrol, the fewer acts of vandalism occur. ← *1 mark*

Question 9 Restricted Response **Statistics** (2 Marks)

◆ **Sample 1**

There is a negative correlation between the number of police officers on patrol and the acts of vandalism occurring in an urban community, with an *r* value of -0.72.

A) Sketch a scatter plot of this correlation on the graph below, using approximately 15 dots.



B) Describe the relationship between the number of police officers on patrol and the number of acts of vandalism.

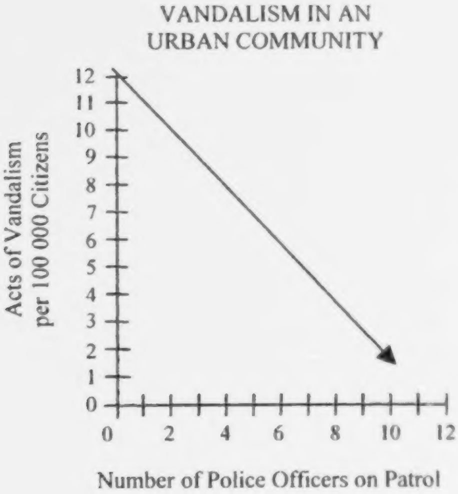
the more cops, the more vandalism

Mark: 0 out of 2
Rationale: - Incorrect scatter plot in A
- Incorrect statement in B

◆ **Sample 2**

There is a negative correlation between the number of police officers on patrol and the acts of vandalism occurring in an urban community, with an r value of -0.72.

A) Sketch a scatter plot of this correlation on the graph below, using approximately 15 dots.



B) Describe the relationship between the number of police officers on patrol and the number of acts of vandalism.

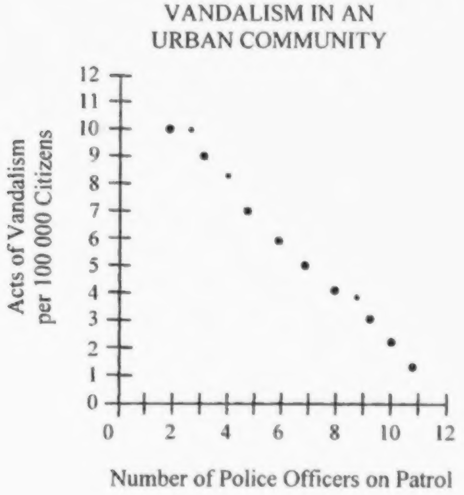
there are fewer vandalism acts when more police are on patrol

Mark: 1 out of 2
Rationale: - No scatter plot in A
- Correct statement in B

- **Sample 3**

There is a negative correlation between the number of police officers on patrol and the acts of vandalism occurring in an urban community, with an *r* value of -0.72.

A) Sketch a scatter plot of this correlation on the graph below, using approximately 15 dots.



B) Describe the relationship between the number of police officers on patrol and the number of acts of vandalism.

As one variable goes up, the other variable goes down

Mark: 1.5 out of 2

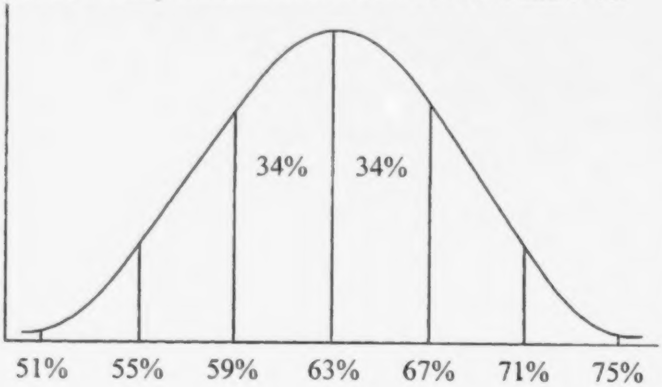
Rationale: - ½ mark deduction in A; minor error; *r* seems to be closer to –1
- Correct statement in B

Question 10 Restricted Response Statistics (2 Marks)

◆ Test Item and Marking Guide V-F5

Mr. Elendiuk calculated the marks for his Senior 4 project. He found the marks had a normal distribution with a standard deviation of 4%. The mean was 63%. There were 30 students in his class.

A) Find how many students scored between 59% and 67%.



Answer: *34% + 34% = 68%* *←½ mark for 68%*

68% of 30 = 20.4 OR 2(34% of 30) = 20.4 OR 34% of 30 = 10.2
2 × 10.2 = 20.4

20 or 21 students scored between 59% and 67% *←½ mark for solution*

B) One of the students claims the project was too hard. Mr. Elendiuk disagrees. Support either point of view using standard deviation and the normal curve.

Sample answers: *Mr. Elendiuk's point of view:*
- *Almost everyone passed the project*
- *The mean was 63%*
- *The SD was only 4%*

Student's point of view:
- *Very few high marks*

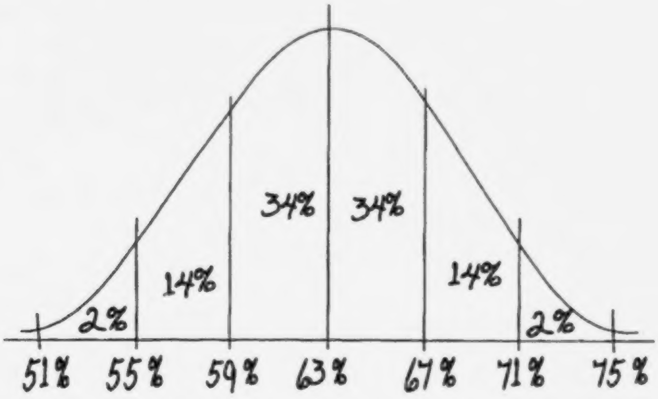
1 mark for a reasonable response

Question 10 Restricted Response Statistics (2 Marks)

◆ Sample 1

Mr. Elendiuk calculated the marks for his Senior 4 project. He found the marks had a normal distribution with a standard deviation of 4%. The mean was 63%. There were 30 students in his class.

A) Find how many students scored between 59% and 67%.



68% of class of 30
30 × .68 = 20.4

Approximately 20 students had scores of between 59 % and 67 %.

B) One of the students claims the project was too hard. Mr. Elendiuk disagrees. Support either point of view using standard deviation and the normal curve.

With a normal curve the majority of scores are around the average or mean while a few people will score really high and a few really low. The higher the mean the easier the project The mean was 63 % so the project was fair and not too difficult

Mark: 2 out of 2

Rationale: - Used distribution curve correctly to identify number of students in A
- Supported and justified point of view for fairness of test in B

Question 11 Restricted Response **Statistics** (1 Mark)

- ### Test Item and Marking Guide **V-F2**

John, Sarah and 3 other students each earned a mark of 72% on their last test. A total of 58 students wrote the test. Thirty-five students received a mark lower than 72%.
Calculate the percentile ranking of John and Sarah.

Answer: $\underbrace{\frac{35+0.5(5)}{58}}_{\substack{\frac{1}{2}\text{ mark} \\ \text{(substitution)}}} \times 100 = 64.7$

$\therefore \underbrace{P_{64}}_{\frac{1}{2}\text{ mark}}$ *or* $\underbrace{P_{65}}_{\frac{1}{2}\text{ mark}}$

Question 11 Restricted Response **Statistics** (1 Mark)

- ### Sample 1

John, Sarah and 3 other students each earned a mark of 72% on their last test. A total of 58 students wrote the test. Thirty-five students received a mark lower than 72%.
Calculate the percentile ranking of John and Sarah.

5/58 got 72%
35/58 were lower 72%
18/58 got other
5/58 = 8.6

Mark: 0 out of 1
Rationale: - No formula, no substitution

Question 11 Restricted Response **Statistics** (1 Mark)

◆ Sample 2

John, Sarah and 3 other students each earned a mark of 72% on their last test. A total of 58 students wrote the test. Thirty-five students received a mark lower than 72%.
Calculate the percentile ranking of John and Sarah.

$$Pr = \left(\frac{30 + 0.5\,(5)}{36} \right) \times 100 = \frac{32.5}{36} \times 100 = 90.3$$

$Pr = 90$ of John, & Sarah

Mark: 0.5 out of 1
Rationale: - Incorrect substitution, error followed through

Question 11 Restricted Response **Statistics** (1 Mark)

◆ Sample 3

John, Sarah and 3 other students each earned a mark of 72% on their last test. A total of 58 students wrote the test. Thirty-five students received a mark lower than 72%.
Calculate the percentile ranking of John and Sarah.

$$P = \left(\frac{35 + 0.5(5)}{58} \right) \times 100$$

$$P = \left(\frac{177.50}{58} \right) \times 100$$

$$P = 306.03$$

Mark: 0.5 out of 1
Rationale: - Correct substitution
- Calculation error

Question 12 Restricted Response **Statistics** (1 Mark)

◆ Test Item and Marking Guide **(V-F3)**

The following statistics indicate the value of cars in Plattsville:

P_{10} = \$5 500 P_{25} = \$7 900 P_{43} = \$9 450

P_{50} = \$14 200 P_{75} = \$18 400 P_{90} = \$23 600

A) Determine the percent of cars with a value less than \$7 900.

Answer: 25% ← *½ mark*

B) Determine the percent of cars that are between \$14 200 and \$18 400.

Answer: $75^{th} - 50^{th} = 25\%$ ← *½ mark*

Question 12 Restricted Response **Statistics** (1 Mark)

◆ Sample 1

The following statistics indicate the value of cars in Plattsville:

P_{10} = \$5 500 P_{25} = \$7 900 P_{43} = \$9 450

P_{50} = \$14 200 P_{75} = \$18 400 P_{90} = \$23 600

A) Determine the percent of cars with a value less than \$7 900.

25
10

35 ÷ 2 = 17.5% of cars with a value of less than \$7 900

B) Determine the percent of cars that are between \$14 200 and \$18 400.

10
+25
+43
+50
−75
53%

Mark: 0 out of 1
Rationale: - Incorrect solution in A
- Incorrect solution in B

Question 13 Restricted Response **Statistics** (2 Marks)

◆ **Test Item and Marking Guide** **VI-F4**

The Happy Smile High Consumer Mathematics (40S) class has a mean of 67% and a standard deviation of 9. The teacher gives a 5% bonus to each student.

A) Explain how the bonus affects the class mean.

Answer: *The class mean will rise to 72%.*
OR
Class mean will increase.

← 1 mark for a reasonable response

B) Explain how the bonus affects the standard deviation of the class.

Sample Answers: *The bonus will have no effect on the standard deviation.*
The standard deviation will not change.

← 1 mark for a reasonable response

Question 13 Restricted Response **Statistics** (2 Marks)

- **Sample 1**

The Happy Smile High Consumer Mathematics (40S) class has a mean of 67% and a standard deviation of 9. The teacher gives a 5% bonus to each student.

A) Explain how the bonus affects the class mean.

Everyone will get higher marks, so the mean will be better.

B) Explain how the bonus affects the standard deviation of the class.

It affects the standard deviation the same way.

Mark: 1 out of 2
Rationale: - Calculation of new mean not required, A is correct
- Incorrect statement in B

Question 13 Restricted Response **Statistics** (2 Marks)

- **Sample 2**

The Happy Smile High Consumer Mathematics (40S) class has a mean of 67% and a standard deviation of 9. The teacher gives a 5% bonus to each student.

A) Explain how the bonus affects the class mean.

The class average will be higher.

B) Explain how the bonus affects the standard deviation of the class.

The standard deviation will not change.

Mark: 2 out of 2
Rationale: - Correct answer in A and B

Variation and Formulas

Question 14 Restricted Response **Variation and Formulas** (3 Marks)

◆ Test Item and Marking Guide VI-F1, F2

A lawyer charges a fixed cost of $50 plus an hourly rate of $125 per hour.

A) Calculate the cost of the services of a lawyer for each of the hours worked.

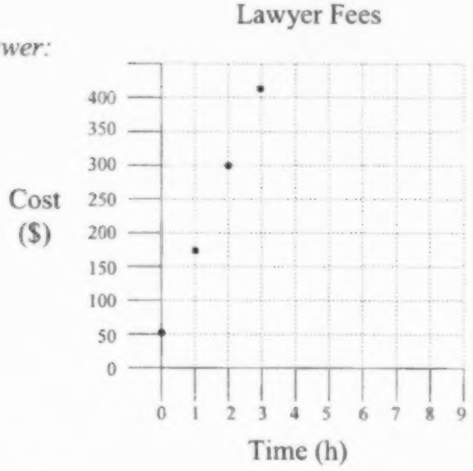
Answer:

Number of Hours	0	1	2	3
Cost	*$50*	*$175*	*$300*	*$425*

½ mark *½ mark*

B) Plot the information from the chart in graph form. Use the graph paper provided below.

Answer:



appropriate scale	*½ mark*
plot points	*½ mark*
label axes	*½ mark*

NOTE TO MARKER:

Students who reverse the axes earn a maximum of 1/1.5 for part B.

C) State the type of variation represented by the lawyer's fees. *partial variation* ←*½ mark*

Question 14 Restricted Response **Variation and Formulas** (3 Marks)

- **Sample 1**

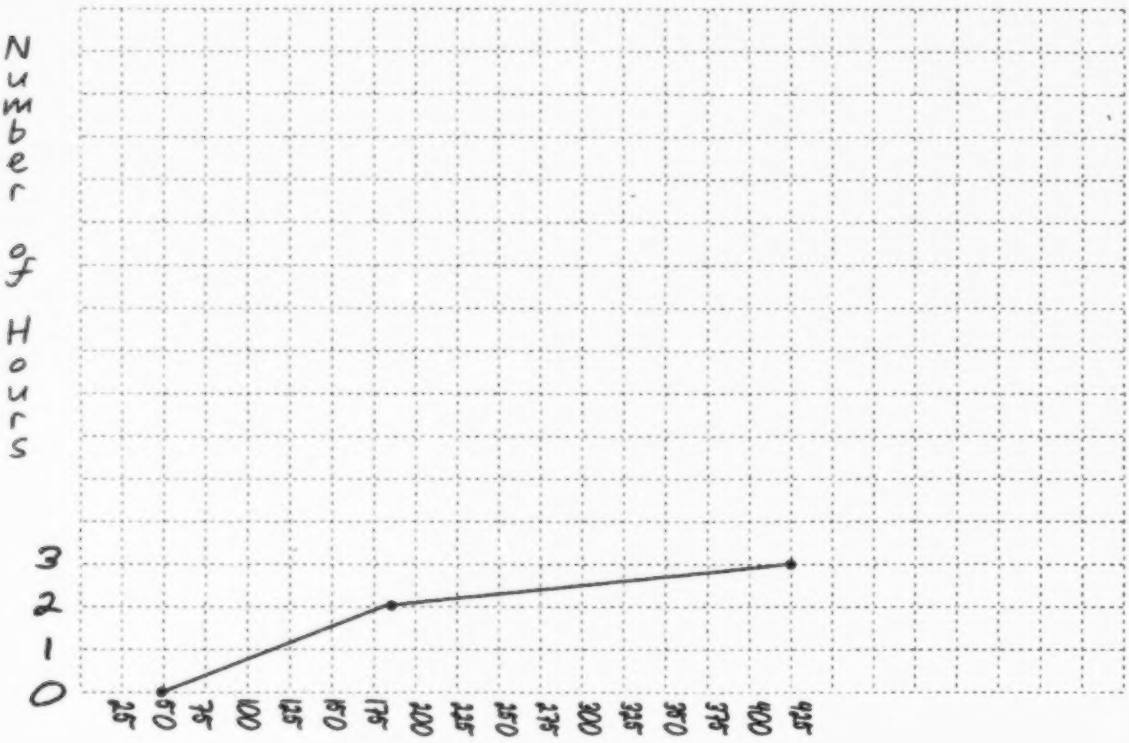
A lawyer charges a fixed cost of $50 plus an hourly rate of $125 per hour.

A) Calculate the cost of the services of a lawyer for each of the hours worked.

Number of Hours	0	1	2	3
Cost	50	175	300	410

B) Plot the information from the chart in graph form. Use the graph paper provided below.

Lawyer Fees



C) State the type of variation represented by the lawyer's fees. ______________

Mark: 1 out of 3
Rationale: - Correct fixed fee of 50 in A (½ mark)
- Correct scaling on graph in B (½ mark)
- One of two axes labelled in B, no mark
- No response in C

Question 14 Restricted Response **Variation and Formulas** (3 Marks)

◆ **Sample 2**

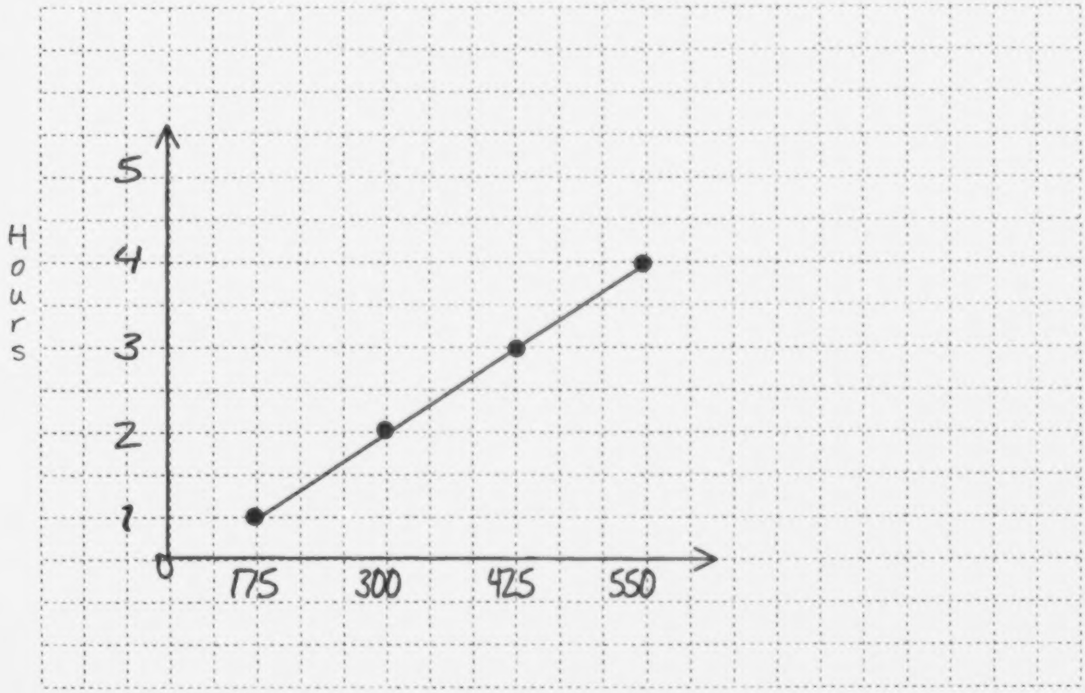
A lawyer charges a fixed cost of $50 plus an hourly rate of $125 per hour.

A) Calculate the cost of the services of a lawyer for each of the hours worked.

Number of Hours	0	1	2	3
Cost	0	175	300	425

B) Plot the information from the chart in graph form. Use the graph paper provided below.

Lawyer Fees



C) State the type of variation represented by the lawyer's fees. ________________

Mark: 1 out of 3

Rationale:
- Correct hourly rate used to calculate table value, 175, 300 and 425 in A (½ mark)
- Three of the four points correctly plotted in B (½ mark)
- No response in C

Question 14 Restricted Response **Variation and Formulas** (3 Marks)

◆ **Sample 3**

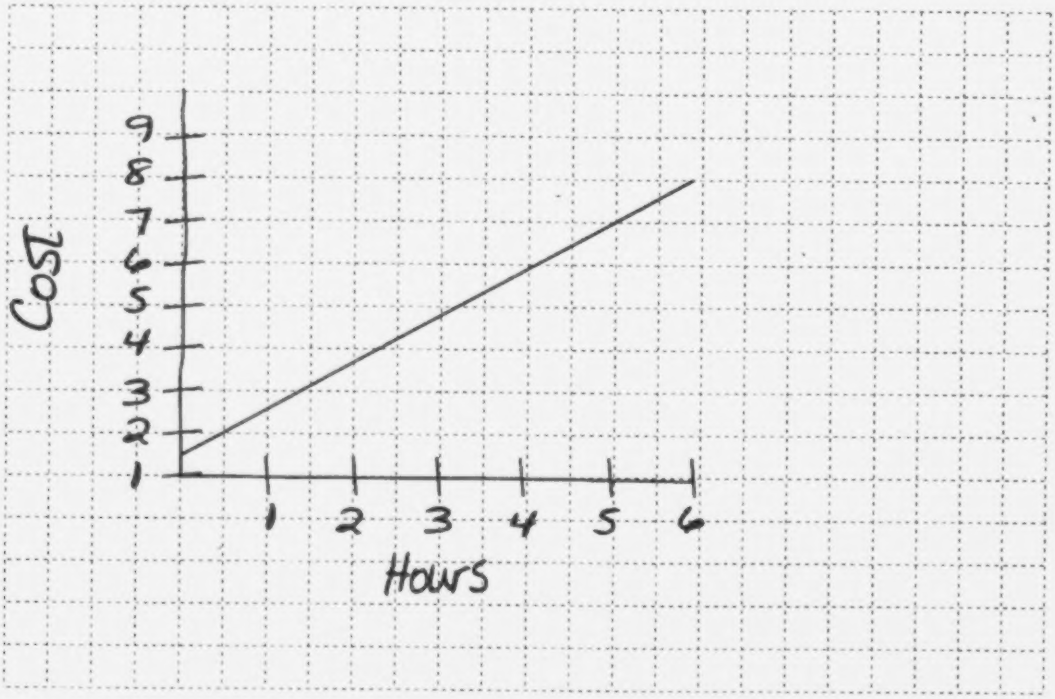
A lawyer charges a fixed cost of $50 plus an hourly rate of $125 per hour.

A) Calculate the cost of the services of a lawyer for each of the hours worked.

Number of Hours	0	1	2	3
Cost	50	175	300	425

B) Plot the information from the chart in graph form. Use the graph paper provided below.

Lawyer Fees



C) State the type of variation represented by the lawyer's fees. Partial variation

Mark: 2 out of 3

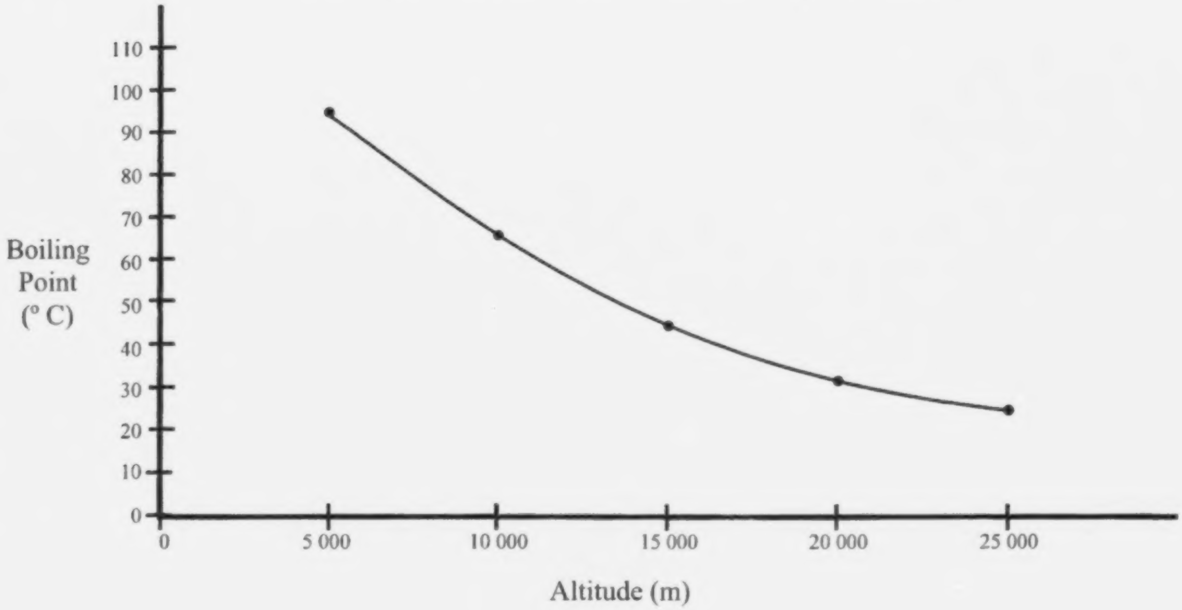
Rationale:
- Correct answer in A (2 × ½ mark)
- Points plotted incorrectly in B
- Inappropriate scale in B
- Axes labelled correctly in B (½ mark)
- Correct answer in C (½ mark)

Question 15 Restricted Response **Variation and Formulas** (2 Marks)

◆ Test Item and Marking Guide **VI-F1, F2**

The following graph shows the relation between the boiling point (in Celsius) of a liquid and the altitude (in metres) above sea level.

Boiling Point of a Liquid Between 5 000 m and 25 000 m



A) Identify the type of variation shown in the graph.

Answer: *inverse variation* ← *1 mark*

B) Describe the relationship between the variables.

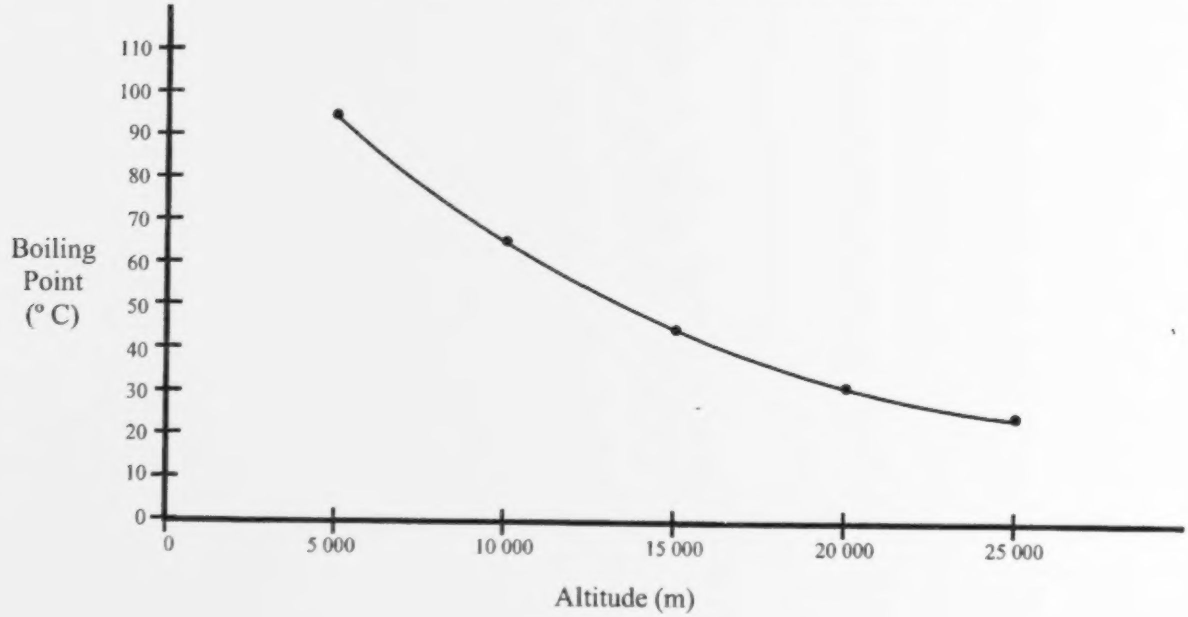
Answer: *The higher above sea level, the lower the boiling point.* ← *1 mark*

Question 15 Restricted Response **Variation and Formulas** (2 Marks)

◆ **Sample 1**

The following graph shows the relation between the boiling point (in Celsius) of a liquid and the altitude (in metres) above sea level.

Boiling Point of a Liquid Between 5 000 m and 25 000 m



A) Identify the type of variation shown in the graph.

Standard Variation

B) Describe the relationship between the variables.

The higher the altitude in meters above sea level the lower the boiling point of water in °Celcius.

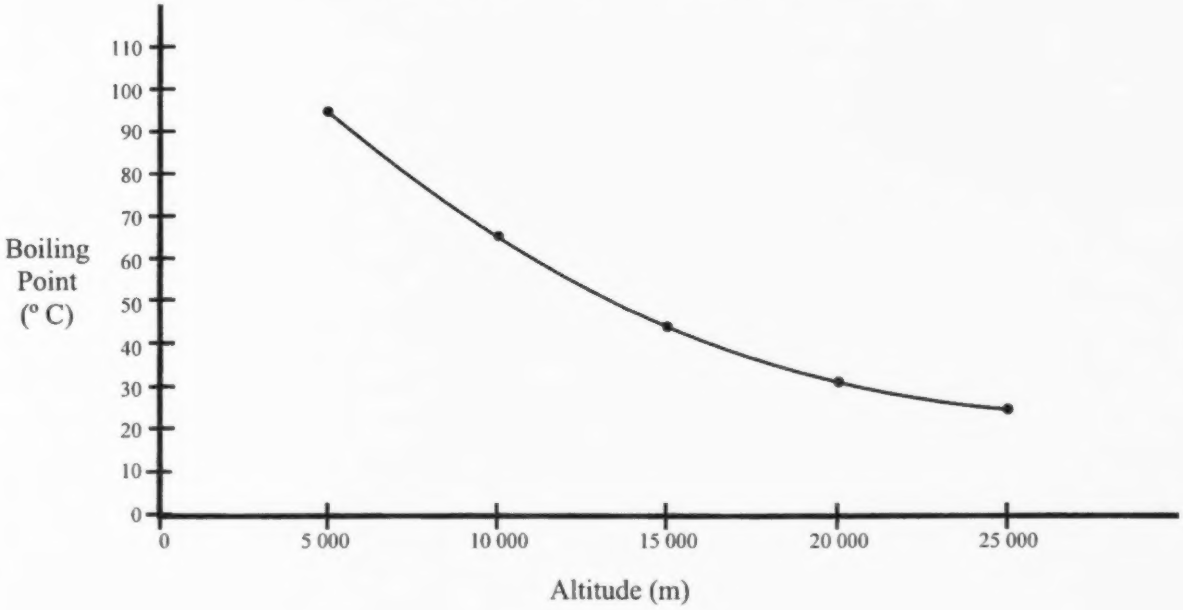
Mark: 1 out of 2
Rationale: - Incorrect identification of variation in A
- Specific description of variables in B (1 mark)

Question 15 Restricted Response **Variation and Formulas** (2 Marks)

◆ **Sample 2**

The following graph shows the relation between the boiling point (in Celsius) of a liquid and the altitude (in metres) above sea level.

Boiling Point of a Liquid Between 5 000 m and 25 000 m



A) Identify the type of variation shown in the graph.

Inverse Variation

B) Describe the relationship between the variables.

As the altitude increases the boiling point decrease creating a inverse variation.

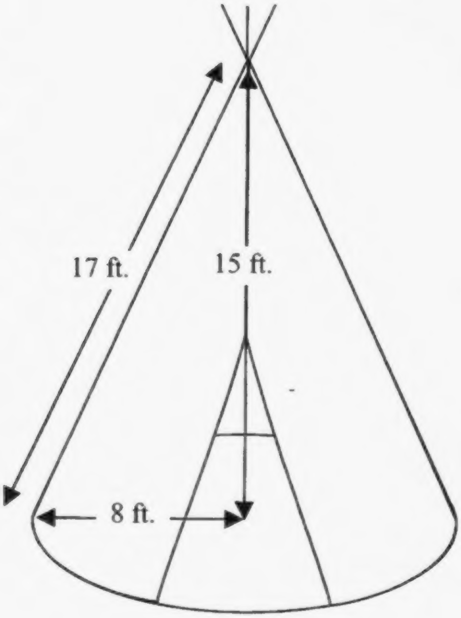
Mark: **2 out of 2**

Rationale:
- Correct identification of variation (1 mark)
- Specific description of variables (1 mark)

Question 16 Restricted Response **Variation and Formulas** (1 Mark)

- ### Test Item and Marking Guide **VI-F4**

An historical encampment that includes a traditional tepee has been constructed at the Forks in Winnipeg.
Find the volume of the tepee.



Answer: $V = \frac{1}{3}\pi r^2 h$

$V = \frac{1}{3}(3.14) \times 8^2 \times 15$ ← ½ *mark (substitution)*

$V = 1\,004.8\ ft^3$ *OR* $1\,005\ ft^3$ ← ½ *mark (solution)*

OR

$1\,005.3\ ft^3$

OR

$320\pi\ ft^3$

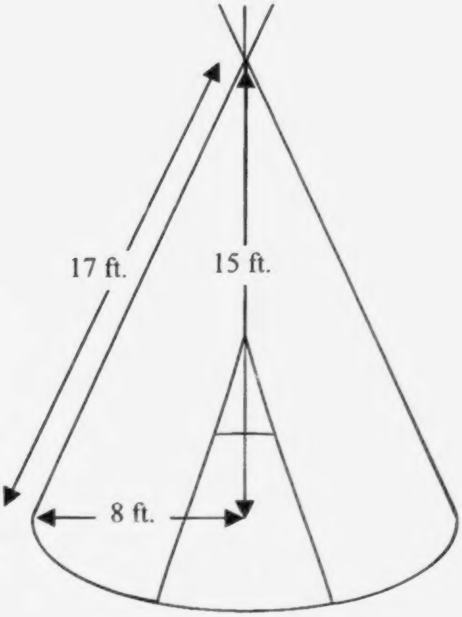
NOTE TO MARKER:

Students using .33 in place of $\frac{1}{3}$ will find a solution of 994.75

Question 16 Restricted Response **Variation and Formulas** (1 Mark)

- **Sample 1**

An historical encampment that includes a traditional tepee has been constructed at the Forks in Winnipeg.
Find the volume of the tepee.



$$V = \frac{1}{3}\pi r^2 h$$

$$V = \frac{1}{3}\pi 8^2 (15)$$

$$V = \frac{1}{3}\pi\ 240$$

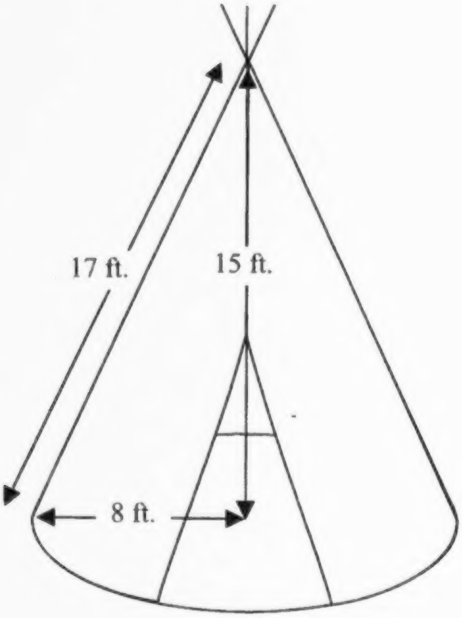
$$V = 1.06 \times 240 = 25\ ft^3$$

Mark: 0.5 out of 1
Rationale: - Correct substitution (½ mark)
- Incorrect solution

Question 16 Restricted Response **Variation and Formulas** (1 Mark)

- **Sample 2**

An historical encampment that includes a traditional tepee has been constructed at the Forks in Winnipeg.
Find the volume of the tepee.



$$V = \frac{1}{3}\pi r^2 h$$

$$V = \frac{1}{3} \times \pi \times 8^2 \times 15$$

$$\frac{1}{3}(3.14 \times 64 \times 15)$$

$$V = \frac{3014.4}{3}$$

$$V = 1004.8 \text{ ft}$$

Mark: 1 out of 1
Rationale: - Correct substitution (½ mark)
- Correct solution (½ mark), correct units not required

Question 17 Restricted Response **Variation and Formulas** (1 Mark)

◆ Test Item and Marking Guide **VI-F3**

A sportscar stopped at a red light. When the light turned green, it accelerated at a rate of 5.56m/s^2 (metres per second squared).
Determine how many seconds it took the sportscar to reach a final speed of 26.7m/s, using the following formula:

$a = \frac{f-i}{t}$ *where* *a = rate of acceleration*
f = final speed
i = beginning (initial) speed
t = time in seconds

Answer: $5.56 = \frac{26.7-0}{t}$ ← *½ mark for substitution*

$t = \frac{26.7}{5.56}$

=4.8 seconds ← *½ mark for correct solution*

Question 17 Restricted Response **Variation and Formulas** (1 Mark)

◆ Sample 1

A sportscar stopped at a red light. When the light turned green, it accelerated at a rate of 5.56m/s^2 (metres per second squared).
Determine how many seconds it took the sportscar to reach a final speed of 26.7m/s, using the following formula:

$a = \frac{f-i}{t}$ *where* *a = rate of acceleration*
f = final speed
i = beginning (initial) speed
t = time in seconds

$$5.56 = \frac{26.7}{T}$$

Mark: 0.5 out of 1
Rationale: - Correct substitution (½ mark)

Question 17 Restricted Response **Variation and Formulas** (1 Mark)

- ### Sample 2

A sportscar stopped at a red light. When the light turned green, it accelerated at a rate of 5.56m/s^2 (metres per second squared).
Determine how many seconds it took the sportscar to reach a final speed of 26.7m/s, using the following formula:

$a=\dfrac{f-i}{t}$ *where* a = *rate of acceleration*
f = *final speed*
i = *beginning (initial) speed*
t = *time in seconds*

$$26.7\ m/s = \frac{5.56 - 0}{t}$$

$$t = 0.2\ s$$

Mark: 0.5 out of 1
Rationale: - Incorrect substitution
- Correct solution (½ mark) based on incorrect substitution

Question 17 Restricted Response **Variation and Formulas** (1 Mark)

- ### Sample 3

A sportscar stopped at a red light. When the light turned green, it accelerated at a rate of 5.56m/s^2 (metres per second squared).
Determine how many seconds it took the sportscar to reach a final speed of 26.7m/s, using the following formula:

$a=\dfrac{f-i}{t}$ *where* a = *rate of acceleration*
f = *final speed*
i = *beginning (initial) speed*
t = *time in seconds*

$$t = \frac{f - i}{a}$$

$$t = \frac{26.7}{5.56}$$

$$t = 4.8\ s$$

Mark: 1 out of 1
Rationale: - Correct substitution and solution (2 × ½ mark)

Question 18 Restricted Response **Variation and Formulas** (1 Mark)

- ### Test Item and Marking Guide **VI- F1, F3**

A baseball is dropped from the top of a tower. The table below indicates the distance the ball travels for different intervals of time.

Time (t) in seconds	Distance (d) in metres
2 3	39.2 88.2

Solve for the constant of variation, k, using the equation $d = kt^2$.

Answer:

$$d = kt^2$$
$$39.2 = k(2)^2 \leftarrow \tfrac{1}{2}\ \textit{mark (substitution)}$$
$$k = \frac{39.2}{4}$$
$$k = 9.8 \leftarrow \tfrac{1}{2}\ \textit{mark (solution)}$$

OR

$$88.2 = k(3)^2$$
$$88.2 = k(9)$$
$$\frac{88.2}{9} = k$$
$$k = 9.8$$

Question 18 Restricted Response **Variation and Formulas** (1 Mark)

- ### Sample 1

A baseball is dropped from the top of a tower. The table below indicates the distance the ball travels for different intervals of time.

Time (t) in seconds	Distance (d) in metres
2 3	39.2 88.2

Solve for the constant of variation, k, using the equation $d = kt^2$.

$$\frac{88.2 - 39.2}{3 - 2} = \frac{49}{1} = 49$$

Mark: 0.5 out of 1
Rationale: - Correct alternate method; time not squared (½ mark)

Question 18 Restricted Response **Variation and Formulas** (1 Mark)

◆ Sample 2

A baseball is dropped from the top of a tower. The table below indicates the distance the ball travels for different intervals of time.

Time (t) in seconds	Distance (d) in metres
2 3	39.2 88.2

Solve for the constant of variation, k, using the equation $d = kt^2$.

$$\frac{39.2}{4} = 9.8$$

Mark: 1 out of 1
Rationale: - Correct substitution and solution (2 × ½ mark)

Question 18 Restricted Response **Variation and Formulas** (1 Mark)

◆ Sample 3

A baseball is dropped from the top of a tower. The table below indicates the distance the ball travels for different intervals of time.

Time (t) in seconds	Distance (d) in metres
2 3	39.2 88.2

Solve for the constant of variation, k, using the equation $d = kt^2$.

$$\frac{88.2 - 39.2}{3^2 - 2^2} = \frac{49}{9 - 4} = \frac{49}{5} = 9.8 \text{ s}$$

Mark: 1 out of 1
Rationale: - Correct alternate method, correct units not required

Investments

Question 19 Restricted Response **Investments** (1.5 Marks)

- ## Test Item and Marking Guide **VI-D5**

Sally wishes to purchase 430 shares of Barbapapa Ltd. at \$8.55 a share. Her broker charges her 3% commission.
Calculate the total cost of purchasing the shares, including brokerage fees.

Answer: $430 \times \$8.55 = \$3\,676.50$ ← ½ mark
$\$3\,676.50 \times 0.03 = \$110.30$ ← ½ mark

Total Cost: $\$3\,676.50 + \$110.30 = \$3\,786.80$ ← ½ mark

OR

$8.55 \times 0.03 = 0.2565$ ← ½ mark
$8.55 + 0.2565 = 8.8065$ ← ½ mark
$8.8065 \times 430 = \$3786.80$ ← ½ mark

Question 19 Restricted Response **Investments** (1.5 Marks)

- ## Sample 1

Sally wishes to purchase 430 shares of Barbapapa Ltd. at \$8.55 a share. Her broker charges her 3% commission.
Calculate the total cost of purchasing the shares, including brokerage fees.

$0.03 \times 8.55 = 0.2565 \times 430 = 110.30$

Mark: 0.5 out of 1.5
Rationale: - Correct calculation of commission (½ mark)

Question 19 Restricted Response **Investments** (1.5 Marks)

◆ Sample 2

Sally wishes to purchase 430 shares of Barbapapa Ltd. at $8.55 a share. Her broker charges her 3% commission.
Calculate the total cost of purchasing the shares, including brokerage fees.

430 x 8.55 = $3 676.50

Mark: 0.5 out of 1.5
Rationale: - Correct calculation of cost of shares

Question 20 Restricted Response **Investments** (1 Mark)

◆ Test Item and Marking Guide VI-D7

A homeowner finds that her Debt Equity Ratio is approximately 40%, while her neighbour's is approximately 15%.
State which financial situation is more favourable and explain why.

Sample Answers: *The neighbour's is more "financially healthy" because her debt is a lower percentage of her equity.*

← ½ mark for selecting the most favourable situation
← ½ mark for explanation

Question 20 Restricted Response **Investments** (1 Mark)

- **Sample 1**

A homeowner finds that her Debt Equity Ratio is approximately 40%, while her neighbour's is approximately 15%.
State which financial situation is more favourable and explain why.

40% is greater than 15%

Mark: 0 out of 1
Rationale: - No criteria met for marks

Question 20 Restricted Response **Investments** (1 Mark)

- **Sample 2**

A homeowner finds that her Debt Equity Ratio is approximately 40%, while her neighbour's is approximately 15%.
State which financial situation is more favourable and explain why.

neighbour better off

Mark: 0.5 out of 1
Rationale: - Correct decision but no explanation given

Question 21 Restricted Response **Investments** (4 Marks)

◆ Test Item and Marking Guide **VI-D7**

Bob's financial situation includes the following:

house	$125 000
mortgage	$110 000
car	$15 000
loan	$12 000
credit card	$5 000
registered savings plan	$9 000
savings account	$3 000

A) Complete the following table based on Bob's financial situation.

Answer:

BOB'S FINANCES		*TOTAL*	
Assets	*125 000 + 15 000 + 9 000 + 3 000*	*152 000*	*← ½ mark*
Liabilities	*110 000 + 12 000 + 5 000*	*127 000*	*← ½ mark*
Net Worth	*25 000*	*25 000*	*← ½ mark*

B) Calculate Bob's debt equity ratio.

Answer: *Debt Equity Ratio*

$127\,000 - 110\,000 = \underbrace{17\,000}_{\text{½ mark}}$

$\underbrace{17\,000 \div 25\,000}_{\text{½ mark}} \times 100\% = 68\%$

68% ← ½ mark

OR $\dfrac{\overbrace{127\,000 - 110\,000}^{\text{½ mark}}}{\underbrace{25\,000}_{\text{½ mark}}} \times 100\% = \underbrace{68\%}_{\text{½ mark}}$

C) Bob is considering a vacation to Mazatlan. The tour package (including flight and accommodations) costs $2 645. Bob would need a loan for this amount.
Explain whether Bob should go to Mazatlan, using the value found for his debt equity ratio.

Answer: $\underbrace{\text{No,}}_{\text{½ mark}}\ \underbrace{\text{Bob's DER is too high}}_{\text{½ mark}}.$ *← 1 mark*

Question 21 Restricted Response **Investments** (4 Marks)

◆ Sample 1

Bob's financial situation includes the following:

house	$125 000
mortgage	$110 000
car	$15 000
loan	$12 000
credit card	$5 000
registered savings plan	$9 000
savings account	$3 000

A) Complete the following table based on Bob's financial situation.

BOB'S FINANCES		TOTAL
Assets	125 000 + 15 000 + 5 000	145 000
Liabilities	110 000 + 12 000 + 9 000	131 000
Net Worth		$14 000

B) Calculate Bob's debt equity ratio.

$$\frac{131\,000 - 125\,000}{14\,000} = 0.43$$

C) Bob is considering a vacation to Mazatlan. The tour package (including flight and accommodations) costs $2 645.00. Bob would need a loan for this amount.
Explain whether Bob should go to Mazatlan, using the value found for his debt equity ratio.

no b/c too high

Mark: 2.5 out of 4

Rationale:
- Correct net worth calculation process (½ mark) but incorrect assets and liabilities in A
- Correct DER process with incorrect mortgage substitution in B (2 × ½ mark)
- Correct answer in C

Question 21 Restricted Response **Investments** (4 Marks)

Sample 2

Bob's financial situation includes the following:

house	$125 000
mortgage	$110 000
car	$15 000
loan	$12 000
credit card	$5 000
registered savings plan	$9 000
savings account	$3 000

A) Complete the following table based on Bob's financial situation.

BOB'S FINANCES		TOTAL
Assets	125 000 + 15 000 + 9 000 + 3 000	152 000
Liabilities	125 000 + 5 000 + 10 000	127 000
Net Worth		$25 000

B) Calculate Bob's debt equity ratio.

$$\frac{17\,000}{25\,000} = .68$$

C) Bob is considering a vacation to Mazatlan. The tour package (including flight and accommodations) costs $2 645.00. Bob would need a loan for this amount.
Explain whether Bob should go to Mazatlan, using the value found for his debt equity ratio.

Mark: 3 out of 4

Rationale:
- Correct answer in A
- Correct answer in B
- No response in C

♦ Test Item and Marking Guide **VI-D5**

Thursday, April 22, 2004						
Name of Company	**Stock Symbol**	**High**	**Low**	**Close**	**Net Change**	**Volume (000's)**
Abbott	ABT	19.25	19.05	19.05	-0.05	82
Bancroft	BCT	13.13	10.71	12.62	-0.30	1 003
Colonial	CLL	22.74	22.60	22.64	-0.11	970
Dumpty	DPY	1.60	1.59	1.60	-0.10	77
Fisher	FSR	0.13	0.13	0.13	-0.005	200
Wallace	WLC	0.34	0.27	0.31	+0.04	623
Hudson	HDN	13.50	13.37	13.45	+0.05	315
Lummox	LMM	44.10	43.75	43.75	-0.29	1 063
Tropical	TPL	10.45	10.25	10.45	+0.35	141
Zenron	ZNR	71.71	71.71	71.71	+1.71	2

A) Identify the stock that had the greatest decrease in value from Wednesday, April 21 to Thursday, April 22, 2004.

Answer: Bancroft or BCT ← *½ mark*

B) Name the stock that is the most expensive.

Answer: Zenron or ZNR ← *½ mark*

C) Name the stock that had the greatest number of shares traded.

Answer: Lummox or LMM ← *½ mark*